Determination: NFA

PA/VSI Or RFA FILE REVIEW CHECKLIST

Facility Name: Vopak USA Inc. (Van Waters & Rogers Evendale)_____

EPA ID: OHD 002 899 847_____ City: Evendale_____ State: OH___

Name of Reviewer: Maureen McHugh_____ Date of Review: 7/28/08_____

1	Yes	No	Is this a one folder site?
2	Yes	No	Are there Superfund files for this site?
3	Yes	No	Did you Read the Executive Summary?
			There are: ___9__ SWMUs and _____ AOCs at this site.
4	Yes	No	Did you review the regulatory history?
5	Yes	No	Does the facility have interim status or a permit?
			This facility is a: __X__(CE)SQG, _____ LQG, or _____ Less than 90 day.
6	Yes	No	Was the Facility closed per RCRA? RCRAInfo 380 (1993)
			If Yes, was the closure: _____ CC, or _____ CIP.
7	Yes	No	Are there documented (historical) releases? Briefly describe on Page 2.
8	Yes	No	Were there releases identified during the inspection? Briefly describe on Page 2.
9	Yes	No	Do you agree with the Conclusions and Recommendations?
			If No, briefly describe on Page 2.

As a result of your review of the PA/VSI or RFA file, please classify this site as:

___X_ No further corrective action recommended or warranted: These are sites that closed the regulated units and any other SWMUs or AOCs at the site did not warrant any further corrective action (no historic releases or evidence of releases observed during the Visual Site Inspection).

_____ Further Action Required: Soil or sediment sampling or groundwater sampling or monitoring or any type of investigation that was recommended in the report in response to a documented or observed release at any SWMU or AOC and where such investigation, whether being addressed during the inspection or after, does not have the necessary documentation in the facility record files.

_____ More Information Needed: There is no RFA, PA/VSI or RCRA closure information available.

PA/VSI Or RFA FILE REVIEW CHECKLIST

Notes

7 10,000gal USTs which held isopropyl alcohol, acerone, mineral spirits, methanol, toluene, xylene, and diesel fuel were removed in 1986

Briefly describe any documented (historical) releases for any SWMU or AOC recorded in the report. For each release, please identify the SWMU or AOC and a one or two line description of release.

Briefly describe any releases observed during the inspection for any SWMU or AOC recorded in the report. For each release, please identify the SWMU or AOC and a one or two line description of release.

PA/VSI Recommendations

Ambient air monitoring at the vents (SWMU4,5,6) and subsurface soil sampling at the former UST area (SWMU8) and versene tank (SWMU9). The USTs were only in operation for 7 years and were removed. The tanks probably did not leak. This site does not warrant RRB attention.

OhioEPA
State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.
Columbus, Ohio 43266-0149
(614) 644-3020
FAX (614) 644-2329

George V. Voinovich
Governor

September 10, 1991

RE: U.S. EPA Comments on Van Waters and Rogers PR/VSI Report
OHD 002 899 847

Ms. Lisa Pierard
Ohio RCRA Permitting Section
USEPA, Region V (5HR-13)
230 South Dearborn Street
Chicago, Illinois 60604

Dear Ms. Pierard:

Please find enclosed insert pages addressing comments made by U.S. EPA in regards to the Preliminary Review/Visual Site Inspection Report prepared by Ohio EPA for the Van Waters and Rogers facility, Hamilton County, Ohio.

The comment regarding the vagueness of the wastes managed in the SWMU descriptions has been corrected to list the waste by name or by waste code. Also, changes were made in the conclusions regarding subsurface gas that states the SWMU is not a land disposal unit. Please exchange pages 58-66 in the original report with the enclosed revised pages.

In its review comments, U.S. EPA also stated that the report should provide more information on the current conditions of the facility, and the possibility of potential releases. Ohio EPA feels the release potential was adequately discussed in the SWMU description's conclusion section. As for current facility conditions being discussed in more depth, Ohio EPA again believes that sufficient detail on the current facility conditions was given in the report. We find no additional substantive information that would be of any value.

If you have any questions regarding these changes, please contact Jane LaGasse of Ohio EPA's Southwest District Office at 513-285-6357.

Sincerely,

for David Sholtis, Assistant Chief
Division of Solid and Hazardous Waste Management

cc: w/enclosures

Sue Nitecki, DERR/CO
Don Marshall, DSHWM/SWDO
Janine Secord, DSHWM/CO

OhioEPA
State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.
Columbus, Ohio 43266-0149
(614) 644-3020
FAX (614) 644-2329

George V. Voinovich
Governor

June 18, 1991

RE: VAN WATERS AND ROGERS, INC.
HAMILTON COUNTY
OHD 002 899 847
RCRA FACILITY ASSESSMENT

File

Ms. Lisa Pierard
Ohio RCRA Permitting Section
USEPA, Region V, (5HR-13)
230 South Dearborn Street
Chicago, Illinois 60604

Dear Ms. Pierard:

Enclosed please find the Preliminary Review/Visual Site Inspection Report for the Van Waters and Rogers facility. This report presents the conclusions of the Preliminary Review (PR) conducted during March, 1991, and a Visual Site Inspection (VSI) conducted on April 2, 1991.

The PR/VSI resulted in the identification of 9 Solid Waste Management Units (SWMUs); a decrease from the 11 SWMUs listed in the VSI Agenda Letter. This decrease in the number of SWMUs is a result of additional information obtained during the VSI. Some SWMUs were eliminated, while others were combined or added.

The recommendations for the units are as follows:

1. Determination of the integrity of all floor drains and sumps (SWMU No. 3).

2. Ambient air monitoring and compliance with the Process Vent Rule regulations (55 Federal Register 25454-25519, June 21, 1990) for fans/vents managing emissions of organic constituents (SWMU Nos. 4, 5, and 6).

3. Surface and subsurface soil sampling and monitoring wells are recommended at SWMU No. 8 (Tank Cavities and Surrounding Soils of Former Underground Storage Tanks) and SWMU No. 9 (Gravel and Clay around the Versene Tank).

4. No further action for SWMU Nos. 1,2, and 7.

Please feel free to contact me at 614-644-2956 if you have any questions.

Sincerely,

for David A. Sholtis
Assistant Chief
Division of Solid and Hazardous Waste Management

Enclosure

cc: Sue Nitecki, DERR/CO, w/enclosure
Jeff Hines, DERR/SWDO, w/o enclosure
Steve Bouchard, USEPA, Region V, w/o enclosure
Don Marshall, DSHWM/SWDO, w/o enclosure
Janine Secord, DSHWM/CO, w/o enclosure

OhioEPA
State of Ohio Environmental Protection Agency
Southwest District Office
40 South Main Street
Dayton, Ohio 45402-2086
(513) 285-6357
FAX (513) 285-6249

Steve

George V. Voinovich
Governor

CERTIFIED MAIL

March 11, 1991

RE: Visual Site Inspection
Van Waters and Rogers Inc.
OHD002899847

Mr. Darrell Wheeler
Operations Manager
Van Waters and Rogers Inc.
3025 Exon Avenue
Cincinnati, Ohio 45241

Dear Mr. Wheeler:

In consideration of your union contract negotiations, the Visual Site Inspection (VSI) for March 13 and 14, has been rescheduled for April 2 and 3. The same time and procedure will be followed as in the previous VSI notification letter.

There has also been a slight change in the inspection team and the others present as follows:

Inspection Team: Donna Bohannon, Amy Gibbons, and Mark Lehar

Others Present: Harold O'Connell, Mark Boden, and Ali Moazed

Please note these changes. Should you have any questions, please contact me at 513-285-6357.

Sincerely,

Jane LaGasse
Ohio EPA, DERR/SWDO

cc: Lisa Pierard, U.S. EPA, Region V
Steve Bouchard, U.S. EPA, Region V
Sue Nitecki, Ohio EPA/DERR/CO
Ralph Slone, Ohio EPA/DSHWM/SWDO
Dave Sholtis, Assistant Chief, Ohio EPA/DSHWM/CO
Michael Starkey, Ohio EPA/DERR/SWDO

OhioEPA
State of Ohio Environmental Protection Agency
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40 South Main Street
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George V. Voinovich
Governor

CERTIFIED MAIL

March 11, 1991

RE: Visual Site Inspection
Van Waters and Rogers Inc.
OHD002899847

Mr. Darrell Wheeler
Operations Manager
Van Waters and Rogers Inc.
3025 Exon Avenue
Cincinnati, Ohio 45241

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Others Present: Harold O'Connell, Mark Boden, and Ali Moazed

Please note these changes. Should you have any questions, please contact me at 513-285-6357.

Sincerely,

Jane LaGasse
Ohio EPA, DERR/SWDO

cc: Lisa Pierard, U.S. EPA, Region V
Steve Bouchard, U.S. EPA, Region V
Sue Nitecki, Ohio EPA/DERR/CO
Ralph Slone, Ohio EPA/DSHWM/SWDO
Dave Sholtis, Assistant Chief, Ohio EPA/DSHWM/CO
Michael Starkey, Ohio EPA/DERR/SWDO

MAR 05 1991

CERTIFIED MAIL: P707 061 620
RETURN RECEIPT REQUESTED

5HR-13

Mr. Darrell Wheeler
Operations Manager
Van Waters and Rogers, Inc.
3025 Exon Avenue
Cincinnati, Ohio 45241

RE: Visual Site Inspection
Van Waters and Rogers, Inc.
OHD 002 899 847

Dear Mr. Wheeler:

Ohio Environmental Protection Agency (OEPA) is conducting a RCRA Facility Assessment (RFA) of your facility located at 3025 Exon Avenue, Cincinnati, Ohio. The RFA is required by the 1984 Hazardous and Solid Waste Amendments (HSWA) to RCRA. It requires identification and systematic review of all solid waste streams and materials potentially containing hazardous constituents at the facility. The objective of this assessment is to determine whether or not releases of hazardous wastes have occurred or are occurring at the site which require further investigation. This analysis will provide information to establish priorities for subsequent remedial investigations.

An integral part of this assessment is a visual site inspection (VSI) of your facility to verify the location of all "solid waste management units" (SWMUs) and to make a cursory determination of their condition by visual observation. The VSI supplements and updates data gathered during a preliminary file review. During this site visit, no samples will be taken. A future sampling visit to ascertain if releases of hazardous wastes or hazardous constituents have occurred may be required at a later date.

Assistance of some of your personnel may be required in reviewing solid waste flow(s) or previous management practices associated with wastes and potentially hazardous materials. This site visit is to provide a technical understanding of the present and past waste flows and handling, treatment, storage, and disposal practices. Photographs of each SWMU area and any other likely area of release (Area of Concern or AOC) are to be taken to document the condition of such units and areas at the facility and the waste management procedures used.

The VSI has been scheduled for March 13-14, 1991. Ohio EPA personnel will be present to conduct the VSI. Your cooperation in admitting and assisting them while on site is appreciated.

In preparation for the VSI, the Ohio EPA personnel are required to identify any potentially hazardous conditions likely to be encountered at the site during performance of the VSI and to prepare a safety plan that deals with the hazards, if necessary. You will be contacted by phone in the near future for

the purposes of obtaining specific information on the level(s) of personal protection required and materials handled in each area of your facility.

A copy of the proposed VSI agenda is enclosed. Please review and gather the information requested prior to the VSI. Should you have questions regarding this letter, please contact Jane LaGasse, Ohio EPA, Southwest District at 513-285-6357.

Sincerely yours,

Lisa A. Pierard, Chief
Ohio Permitting Section
RCRA Permitting Branch

Enclosure

cc: Sue Nitecki, OEPA/DERR/CO
Dave Sholtis, Assistance Chief, OEPA/DSHWM/CO
Ralph Slone, OEPA-SWDO
Michael Starkey, OEPA/DERR/CO
Steve Bouchard, RPB

CONCURRENCE REQUESTED FROM RPB			
OTHER STAFF	RPB STAFF	RPB SECTION CHIEF	RPB BRANCH CHIEF
03/05/91	3/15/91	3-15-91	

ATTACHMENT I

PROPOSED RCRA VISUAL SITE INSPECTION AGENDA

Facility: Van Waters and Rogers, Incorporated
EPA I.D. No. OHD 002 899 247

Location: 3025 Exon Avenue
Cincinnati, Ohio

Facility Contacts: Mr. Darrell Wheeler (Operations Manager)
513-563-2440

Date of Inspection: March 13-14, 1991

Inspection Team:

Donna Bohannon	Ohio EPA/SWDO	513-285-6357
Amy Gibbons	Ohio EPA/SWDO	513-285-6357
Jane LaGasse	Ohio EPA/SWDO	513-285-6357
Mark Lehar	Ohio EPA/SWDO	513-285-6357

Others Present:

Harold O'Connell	Ohio EPA/SWDO	513-285-6357
Mark Boden	Ohio EPA/SWDO	513-285-6357
Steve Bouchard	U.S. EPA/RCRA	312-886-7569

OBJECTIVES OF THE VISUAL SITE INSPECTION:

The Hazardous and solid Waste Amendments (HSWA) of 1984 requires corrective action for releases of hazardous wastes and solid wastes containing hazardous constituents at facilities that manage hazardous wastes. The corrective action authority extends to all solid waste management units (SWMUs) and other likely release areas (Areas of Concern - AOCs) at the facility. The first phase of the corrective action program, as established by the U.S. EPA, is performance of a RCRA Facility Assessment (RFA). The steps in the RFA process include a preliminary review (PR) of available file information, a visual site inspection (VSI) of the facility and, if necessary, a sampling visit (SV). A preliminary review of the file material has been performed for this facility, and a VSI has been deemed necessary. the purposes of the VSI are:

1. To collect all available, relevant information on solid waste management practices that have been used at the site;

2. To gain first-hand information regarding the identification,location, construction, configuration, capacity and/or size, function served, method of operation, release control provisions and condition of each SWMU;

3. To confirm by visual inspection and discussion with facility representatives the information collected during the PR;

4. To survey the site for additional SWMUs and AOCs not identified in the review of file material;

5. To identify potential sample points for possible future sampling activities;

6. To review the site information and collect additional information to address the information needs identified during the PR, and;

7. To take photographs of all SWMUs and AOCs.

INSPECTION PLAN

Ohio EPA will send a field team to perform a Visual Site Inspection. Due to the size of the facility and the tentative number of SWMUs and AOCs identified, a one-day inspection is anticipated, however two days will be scheduled. The team will inspect all past and current solid waste and hazardous waste handling, storage, treatment and disposal areas on-site. Outdoor and indoor waste generation, collection and accumulation areas in production facilities will be inspected as necessary to acquire a complete understanding of waste streams, waste flows and waste handling procedures. The team will also identify, inspect and document potential pathways for release of hazardous constituents into the environment. Facility staff will be interviewed to develop a better understanding of past and current waste management practices. At this time, the facility is requested to provide any recent environmental monitoring or sampling data that may not be in the current Ohio EPA files. These data may include any soil characterization, hydrogeologic data, air quality data, analytical tests of wastes or any other studies relevant to the environmental conditions at the site.

The overall rationale of this inspection is to enable the team to trace the waste flows through the entire facility, from the point of inception or generation, to ultimate disposal. The schedule on the following page has been prepared based on the PR, and is intended as an outline for a thorough and efficient inspection of all SWMUs and AOCs on the site. Some adjustments to the proposed agenda may be necessary to accommodate facility staff, location of the units, operational constraints or unforeseen conditions. The proposed schedule will be reviewed during the introductory meeting and adjusted, if necessary, at that time. The VSI field team will make every reasonable effort to conform to the facility's normal hours of operation.

A general schedule for the VSI has been developed based on the information gathered during the PR. Due to the field team's lack of information about exact SWMU locations, it is suggested that a facility map be made available during the introductory meeting so that an expeditious inspection schedule can be finalized between the inspection team and facility representatives. Also at the introductory meeting, the SWMU list and information needs will be reviewed with facility representatives.

PROPOSED VSI SCHEDULE

TIME	ACTIVITY
DAY 1	
8:30 - 9:00 a.m.	Introductory meeting with facility representatives. Discuss agenda, safety and health considerations, and access to facility hazardous waste storage and management areas.
9:00-10:00 a.m.	Review facility history, including past and present waste streams and waste handling/ disposal methods. Identify any SWMUs and AOCs not identified in the file review. Discuss information needs (see Attachment 3).
10:00 a.m.-12:00	Tour of facility generally following the waste streams associated with the activities on site. Begin with the solvent unloading, testing, storage, and transfer area. View the recycling area. View the laboratory.
12:00-1:00 p.m.	Lunch Break.
1:00-5:00 p.m.	Complete tour of facility process area. Visit any remaining areas where wastes are collected, stored, treated or disposed. Continue outdoors if necessary to complete waste stream.
DAY 2	
8:30 a.m.-4:00p.m.	Finish VSI, if needed. Conduct close out meeting.

ATTACHMENT 2

TENTATIVE LIST OF SWMUs

1. Concrete loading/unloading area
2. Yard storm drains (two)
3. Rail loading/unloading area (spur)
4. Neutralization pit
5. Hazardous waste storage area
6. Corrosives building
7. Corrosives piping and drain from neutralization pit
8. Buried tanks (seven)
9. Repack building
10. Tank farm
11. Corrosive dike area

ATTACHMENT 3

ADDITIONAL INFORMATION NEEDS AND ITEMS FOR REVIEW DURING VSI

1. Identify any additional SWMUs not listed in the tentative list of SWMUs. Include a brief description of wastes managed in these units and the period of operation. Units to identify include, but are not limited to, the following:

   * Above ground and underground waste storage tanks.

   * Abandoned storage tanks.

   * Waste storage units for solid and hazardous wastes which fall under the 90-day exemption from RCRA permitting requirements.

   * All waste handling areas and associated activities including loading zones, transfer areas, and waste accumulation areas.

2. Provide the following information for all underground storage tanks:

   * Description of any releases;
   * Age of tank;
   * Location of tank;
   * Materials of construction;
   * Date of installation;
   * Date of removal or discontinuation of use, if applicable.

3. Provide an up-to-date facility map suitable for delineating the location of all SWMUs, AOCs, buildings and dimensions thereof, and tanks. The facility map should show site topography, underground and above ground piping, stormwater ditches, and streams. If this is not practical, separate design drawings for this information should be provided (100 or 200 scale, 2 copies).

4. Provide an area wide topographic map showing property boundaries (including total facility area, acres), locations of potable wells, adjacent property owners, location of community water supplies, streams (including classifications), and closest recreational facilities (1000 or 2000 scale, 2 copies).

5. Provide a history of facility ownership, land use and waste management.

6. Provide start-up date of the facility and describe any processes and/or disposal changes which have altered the facility profile over the life of the operation.

7. Provide quantities and dates that spills, leaks or releases of solvents have occurred at this site, if any.

8. Describe on-site remediation measures, if any.

9. For those SWMUs identified, provide a list of associated air pollution control equipment and the permit history of each.

10. Provide details pertaining to any ground water monitoring, soil sampling or hydrogeology studies. Provide information on the depth to ground water.

11. Describe past and present waste disposal procedures.

12. Describe the EPA protocol used on wastes generated at the site.

13. Provide current and historical diagrams showing industrial wastewater, sanitary sewer and stormwater pipelines at the facility, including all sumps, roof drains, etc.

14. For each SWMU and AOC in Attachment 2, provide the following information:

    * location on facility map;
    * dates of operation;
    * design features (e.g., material of construction, dimensions of unit, release controls);
    * history of unit's construction (e.g., indicate whether current release controls have been in place over the life of the unit;
    * run-on/run-off controls at the unit;
    * details on the method of waste transfer, including transfer release controls;
    * details of any waste management practices over the life of the unit;
    * description of wastes managed and their volume;
    * history of releases;
    * regulatory status, and;
    * closure information, if applicable.

PRELIMINARY REVIEW/VISUAL SITE INSPECTION REPORT

Van Waters & Rogers
3025 Exon Avenue
Evendale, Ohio 45241

EPA ID No. OHD002899847

for

U.S. Environmental Protection Agency
Region V
230 South Dearborn street
Chicago, Illinois 60604

Prepared by

Ohio Environmental Protection Agency
Southwest District
40 South Main Street
Dayton, Ohio 45402

June 18, 1991

TABLE OF CONTENTS

APPENDICES:

A. Visual Site Inspection Agenda Letter
B. Well logs
C. Visual Site Inspection Summary Report
D. Photograph Log
E. Team Member Field Notes

LIST OF FIGURES

LIST OF TABLES

I. EXECUTIVE SUMMARY

Van Waters and Rogers, Inc. (the Facility), a subsidiary of Univar Corporation, is primarily a distributor of chlorinated solvents. The Facility handles various solvents including trichloroethane, methylene chloride, perchloroethene and several corrosives (i.e., sulfuric acid, nitric acid). Food chemicals such as Versene (Calcium Disodium EDTA) are also handled at the Facility. Permitted waste operations include acceptance and storage of certain hazardous wastes prior to off-site treatment and disposal at a permitted facility.

Based on information acquired during the Preliminary Review (PR), a tentative Solid Waste Management Unit (SWMU) list was included in the Visual Site Inspection (VSI) Agenda Letter (Appendix A) which identified 11 SWMUs. The SWMUs included storage areas, repackaging areas and loading/unloading areas. As a result of the VSI, several additional SWMUs were identified, while some tentative SWMUs were eliminated or modified. No Areas of Concern were listed.

Table 1 presents the final list of SWMUs identified as a result of the PR, VSI and supplemental information from the Ohio Environmental Protection Agency (OEPA) and the Facility. This list includes 9 SWMUs whose locations are shown in Figure 1. Each SWMU is described in Section IV of this report.

TABLE 1: FINAL LIST OF SWMUs

1. Concrete Loading/Unloading Dock, Concrete Ramp (both on east side) and the Truck Bay Loading/Unloading Area (southeast corner)

2. Hazardous Waste Storage Pad

3. Drains, Piping, and Drum Wash Pit in Corrosives Building and Acid Neutralization Holding Tanks

4. Vent - Drum Wash Pit

5. Vent - Corrosives Filling Point

6. Vent - Solvent Repack Building

7. Drum - Hazardous Waste Satellite Accumulation Area

8. Tank Cavities and Surrounding Soils - Former Underground Storage Tanks

9. Gravel and Clay around Versene Tank

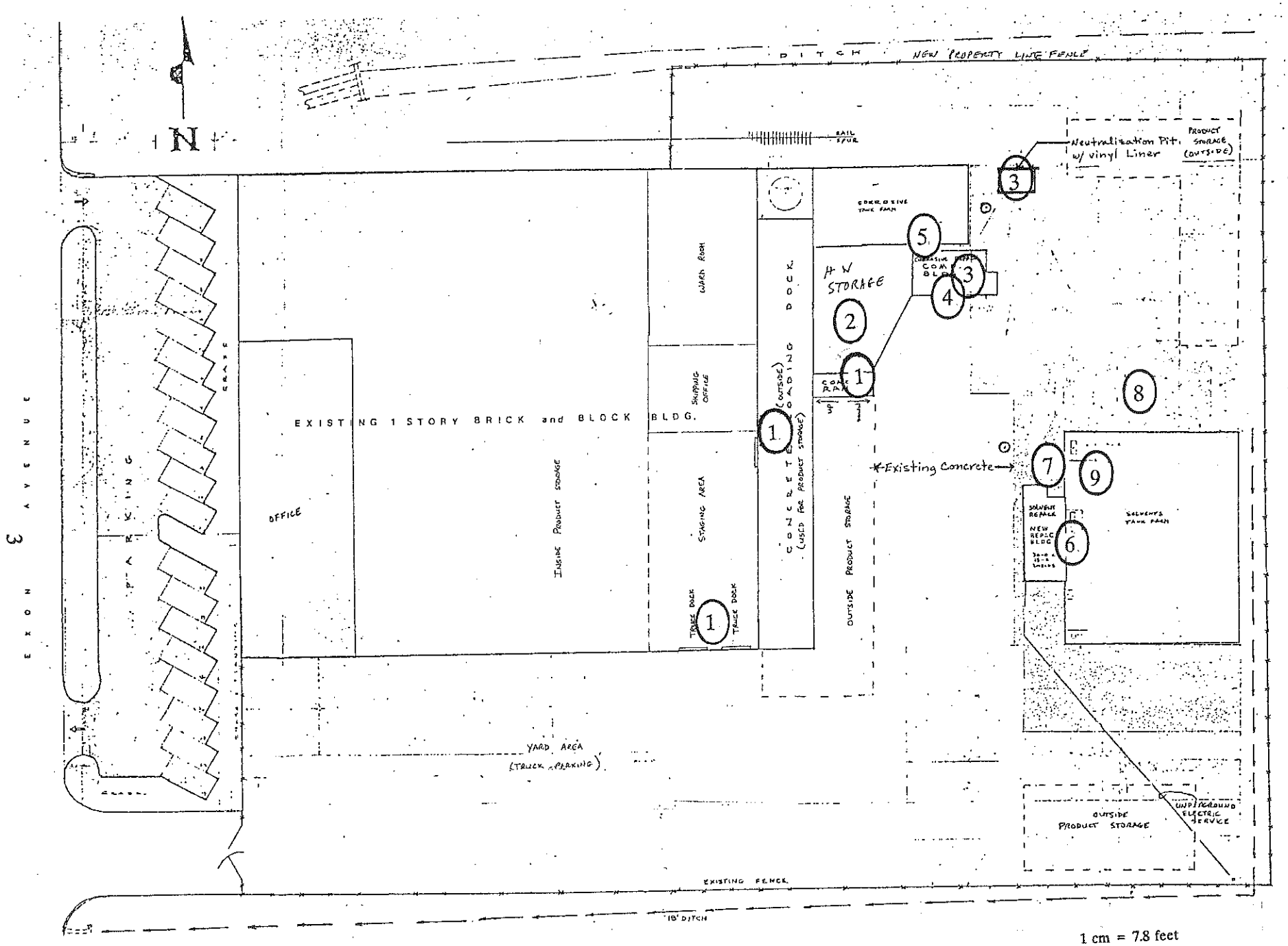

Figure 1. SWMU Location Map

Based on review of the information acquired and summarized for this site, the following recommendations can be made:

- Determination of the integrity of all floor drains and sumps is recommended (SWMU No. 3).
- Ambient air monitoring and compliance with the Process Vent Rule regulations (55 Federal Register 25454-25519, June 21, 1990) are recommended at SWMU Nos. 4, 5, and 6. This includes installation and operation of control devices such that emissions of organic constituents are reduced to 95 percent of the total organic constituents.
- Surface and Subsurface Soil Sampling and monitoring wells are recommended at SWMU Nos. 8 and 9.
- No further action is recommended at all other SWMUs (Nos. 1, 2, and 7).

This report summarizes information acquired during the PR and VSI concerning SWMUs and the release potential for hazardous constituents from these units. Following this section, the report contains an Introduction; a General Description, which includes descriptions of the facility process and waste management operations, regulatory and compliance histories, and environmental setting; Descriptions of Solid Waste Management Units; a Summary of Suggested Further Actions; and References. The VSI Agenda Letter, Well Logs, VSI Summary Report, the VSI Photograph Log, and Logbook Notes are all provided as appendices.

II. INTRODUCTION

This report presents the results of the Preliminary Review/Visual Site Inspection (PR/VSI) phases of the RCRA Facility Assessment (RFA) of Van Waters and Rogers, Inc. located in Cincinnati, Ohio, Hamilton County. Van Waters and Rogers, Inc. is listed under EPA I.D. No. OHD002899847.

The Preliminary Review (PR) of existing file material for Van Waters and Rogers, Inc. occurred during March, 1991. This was done to identify the need for additional information and to provide focus for activities to be conducted during the VSI. The VSI of the Facility was conducted on April 2, 1991, as part of the RFA. The objectives of the RFA at Van Waters and Rogers were to:

1. Identify all SWMUs which are located at the Facility.

2. Use information obtained from the file review and VSI to assess the potential for release of hazardous waste or hazardous constituents from each SWMU.

3. For each SWMU, determine what further measures, if any, should be taken to safeguard human health and the environment from a release (if those measures have not already been taken).

4. Obtain a thorough understanding of the past and present process and waste management operations at Van Waters and Rogers.

The information used in preparing this report was compiled from the Facility's Part B Permit Application, information provided with the Facility's certification regarding potential releases from SWMUs, other information obtained from OEPA and USEPA, Region V, information received from the Facility in response to the VSI Agenda and Information Needs Letter, and information gathered during the VSI. A list of references used is provided in Section VI of this report.

III. GENERAL DESCRIPTION

A. Facility Description

The Van Waters and Rogers, Inc. facility is located within the village of Evendale (Cincinnati), Ohio, at 3025 Exon Avenue. The Facility (Figure 2) lies between Mill Creek, State Route 42, and State Route 126, in the northeast portion of Hamilton County. Coordinates for the facility are 39°15'30" north latitude and 84°25'16" west longitude. The Van Waters and Rogers facility (Figure 3) consists of a masonry, steel-framed building of approximately 19,100 square feet of which approximately 2,900 square feet is office and the remainder is warehouse. The area designated for hazardous waste storage consists of approximately 1,450 square feet located in the outside yard area adjacent to the building (References 15, 19, 20).

The overall yard area is approximately 113,000 square feet of which approximately 97,000 square feet is surrounded by a six-foot high chain link fence topped by three strands of barbed wire extending upwards an additional foot. The area designated for hazardous waste storage is entirely within the fenced portion of the yard. Drainage for the yard is controlled by two storm drains whose valves can be closed to prevent outflow from the yard (References 6, 19, 20).

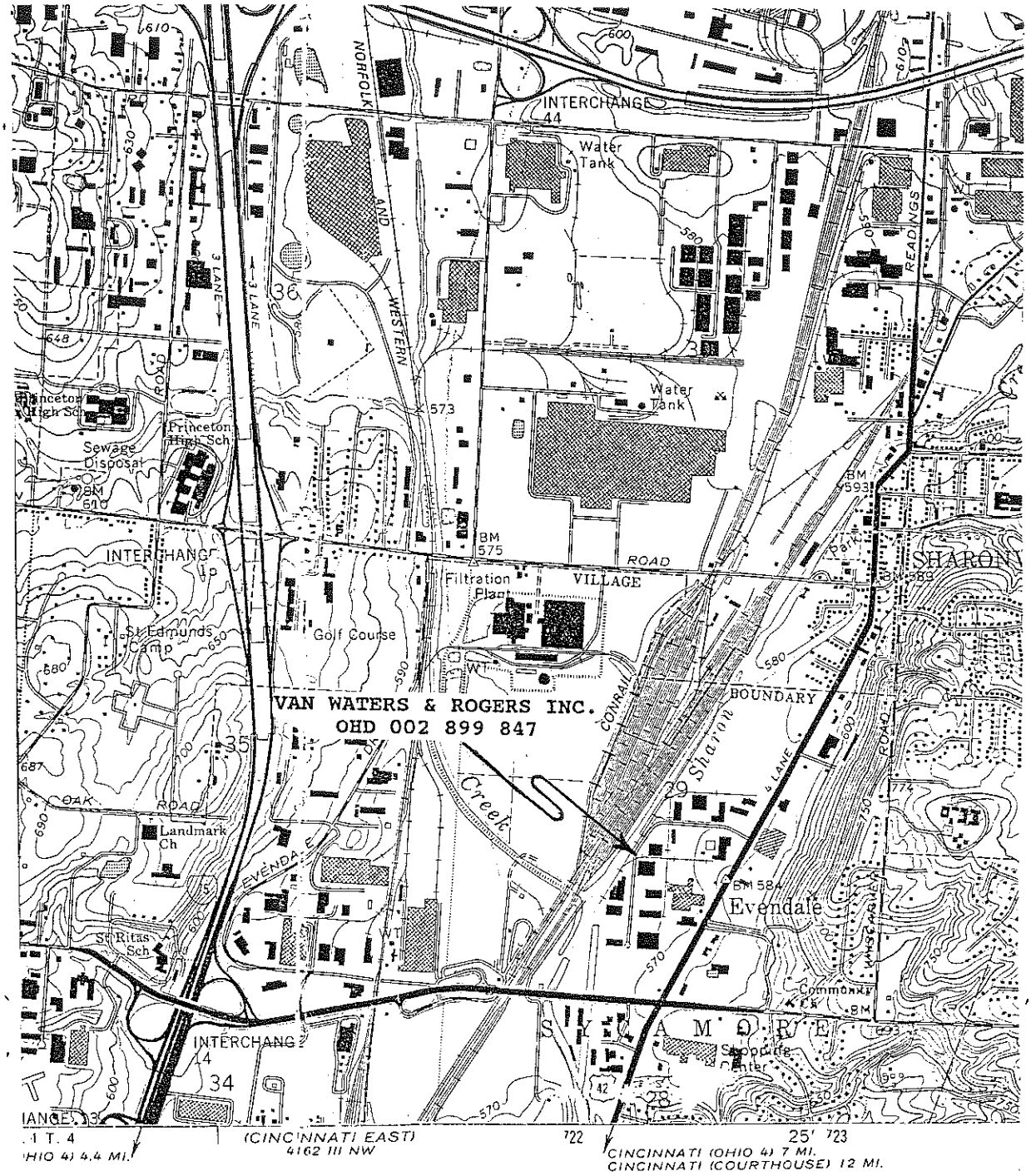

Figure 2. Site Location Map

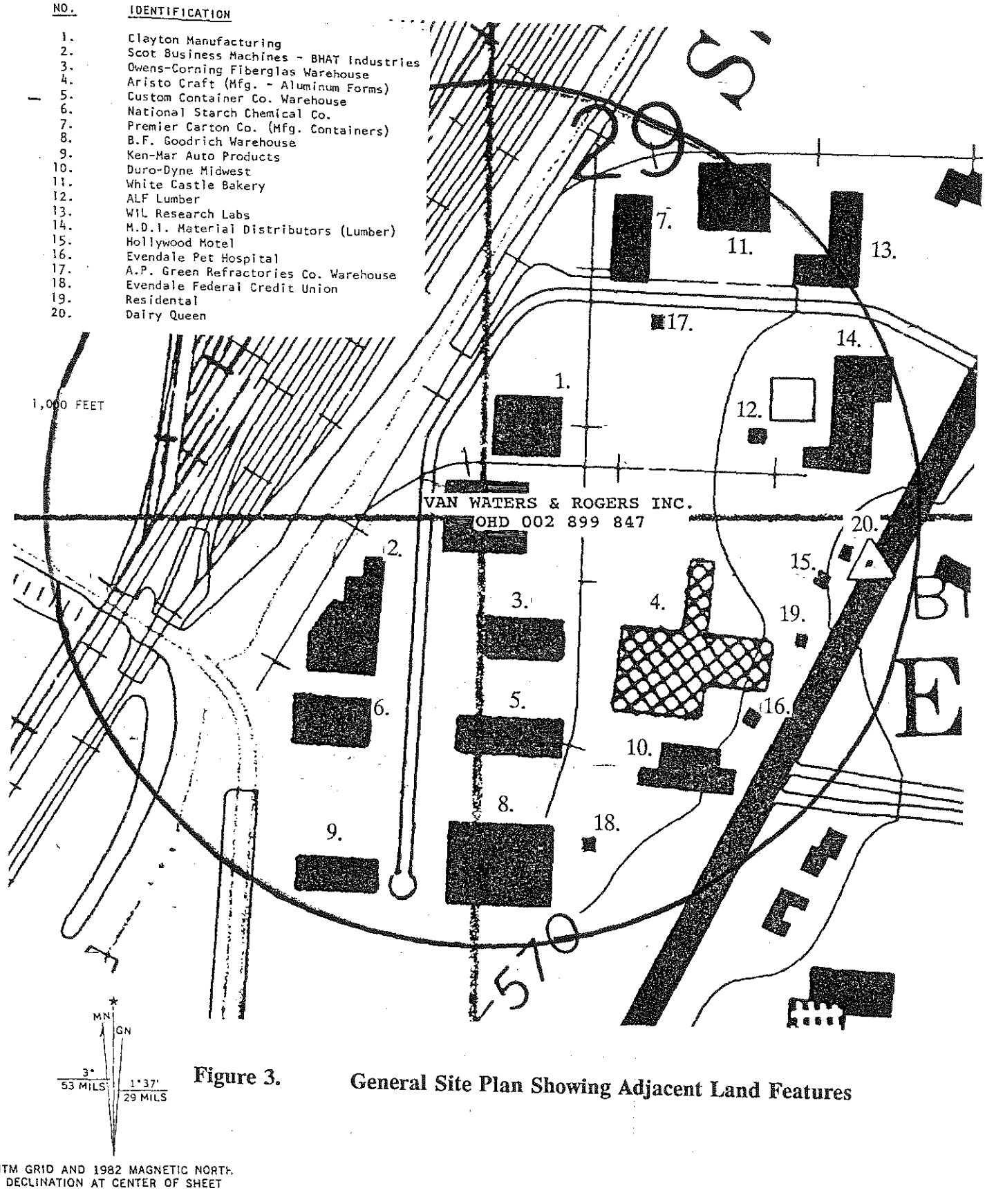

Figure 3. **General Site Plan Showing Adjacent Land Features**

Van Waters and Rogers is a distributor and repacker of a wide variety of industrial chemicals and solvents (Table 2), many of which are hazardous (flammable, corrosive, toxic, oxidative) including F001, F002, F003, and F005 wastes, and D001 wastes.

Van Waters and Rogers also acts as a transfer facility by picking up waste chemicals from generators, staging the chemicals at the Facility and then shipping them to Safety Kleen in Kentucky. The Facility stores only containerized (55 gallon drums) solvent waste from off-site generators and their own repackaging operations. The current maximum inventory is 120 containers or approximately 6,600 gallons of hazardous waste. Waste is stored on-site no longer that 180 days (References 3, 19, 20).

No manufacturing or processing activities are carried out at the Facility. Neither does the Facility operate hazardous waste tanks, waste piles, impoundments, incinerators, or land treatment units. No leachate is generated at the site. Hazardous waste operations are limited to transportation and container storage of hazardous waste (References 19, 20).

File information does not indicate the existence of any historical spills or leaking drums in the past. However, during the VSI the Facility informed Ohio EPA that the Versene tank had leaked and was emptied by Facility personnel on August 23, 1990. According to Van Waters and Rogers, Inc., there have not been any accidents that have caused serious injury to personnel or the environment (Reference 20).

TABLE 2: HAZARDOUS WASTES HANDLED BY VAN WATERS & ROGERS

HAZARDOUS WASTE CODES	CHEMICAL
	HALOGENATED SOLVENTS:
F001	tetrachloroethylene trichloroethylene methylene chloride 1,1,1-trichloroethane chlorinated fluorocarbons
F002	orthodichlorobenzene trichlorofluoromethane
	NON-HALOGENATED SOLVENTS:
F003	xylene acetone ethyl acetate ethyl benzene ethyl ether methyl isobutyl ketone n-butyl alcohol cyclohexanone methanol
F005	toluene methyl ethyl ketone carbon disulfide isobutanol pyridine benzene
	IGNITABLE WASTES:
D001	isopropanol ethanol glycol ether

The contact and the party responsible for the management of hazardous waste activities at Van Waters and Rogers is:

Darrell Wheeler
Operations Manager
W - 513-563-2440

A plot plan for the current plant operations is shown in Figure 4.

B. Process Description

Van Waters and Rogers is a warehouse that accepts bulk chemical products for repackaging and distribution only. There are no manufacturing or processing activities at the Facility. Most of the product stored at the Facility is received in drums or portable tanks (liquids) or bags (powders and crystals). Figure 5 shows the cycle of product and waste management from the time the product enters the Facility until the time that the waste leaves the Facility. Product warehoused in drums, portable tanks, and bags is sold and delivered in those same containers. Product in the bulk storage tanks is generally packaged into drums or portable tanks before being sold and delivered to customers. Occasionally, product in the bulk storage tanks is sold and delivered in bulk using a tank truck (References 3, 9 - 11, 20).

Prepackaged products and containers of waste are delivered to the Facility on trucks. There is a rail spur located on the north side of the warehouse, but it has not been used since 1976. There are two loading/unloading trucks docks located at the

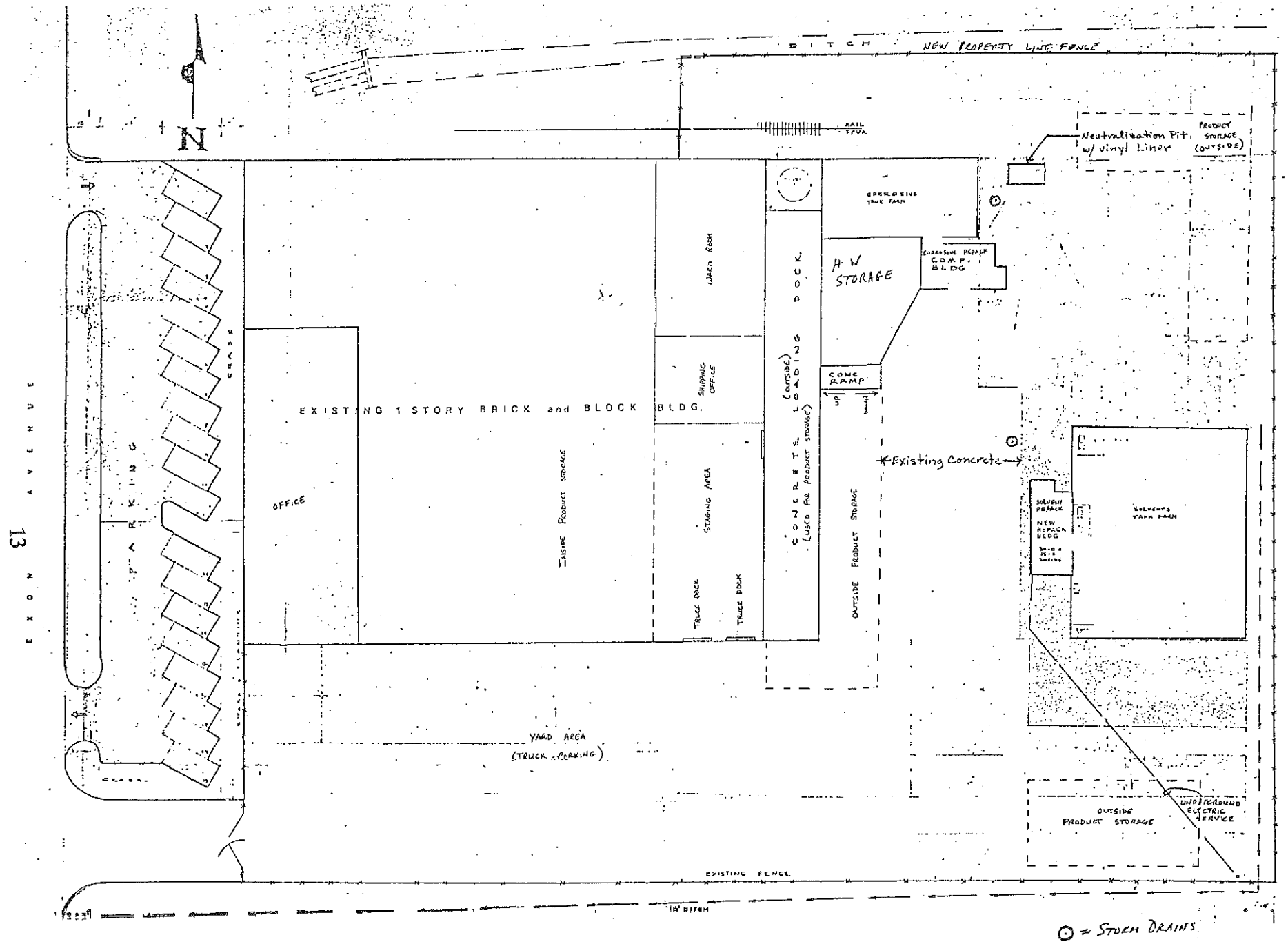

Figure 4. Plot Plan for Current Operations

1 cm = 7.8 feet

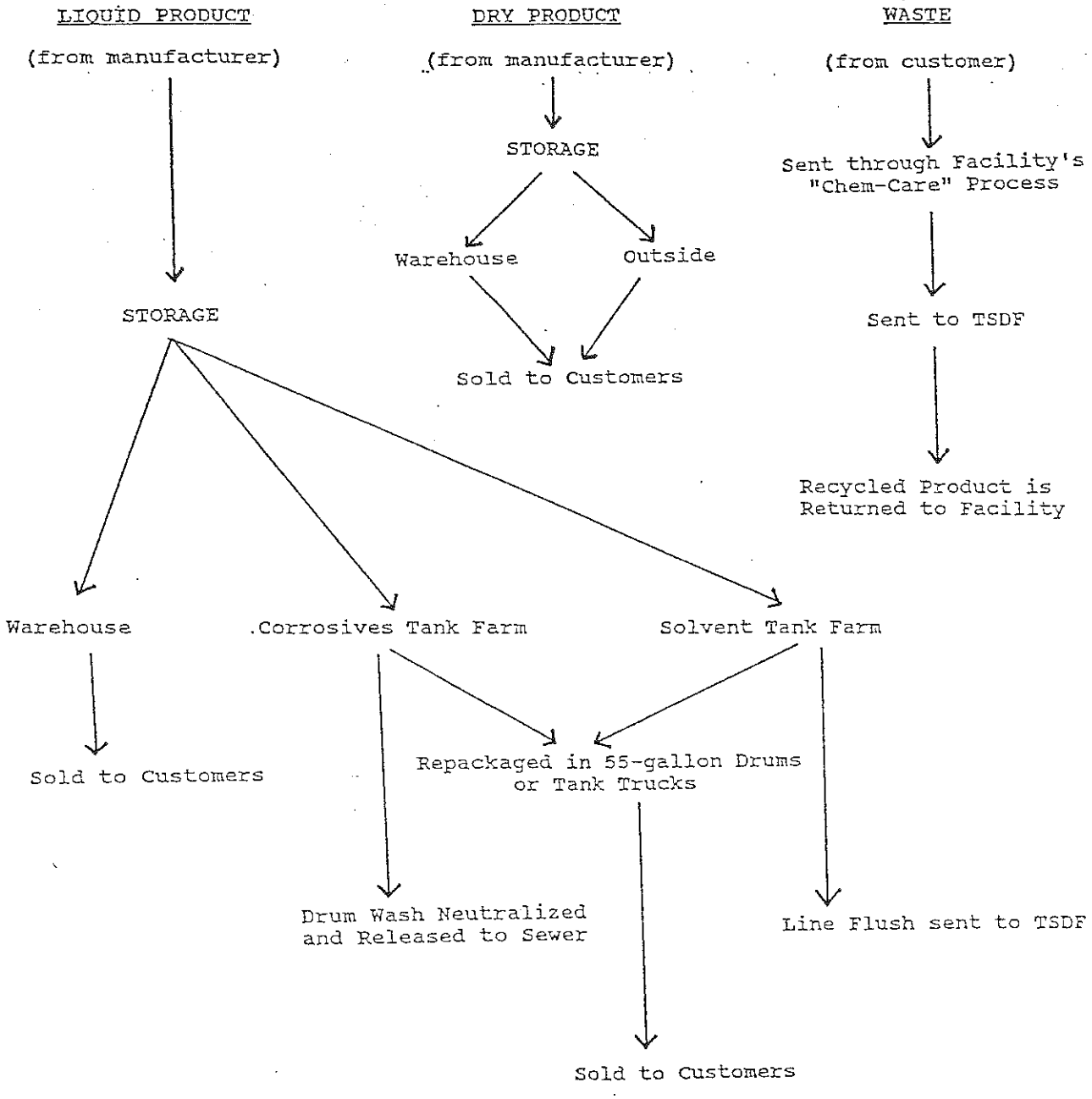

Figure 5. Product and Waste Management Flow Stream

southeast corner of the warehouse. Material is unloaded from delivery trucks using forklift trucks and staged in the loading dock area where the shipment is inspected and approved for receipt. Material is then moved to its proper storage location.

Product and containers of waste are shipped from the Facility using the same two truck docks where material is received. Material is pulled from its warehouse storage location using forklift trucks and staged in the loading/unloading area. Prior to loading, all material is inspected and arranged in the order in which it will be delivered (first on - last off), and approved for delivery. Material is then loaded on the trucks (References 3, 9 - 11, 20).

1. Bulk Liquid Chemicals

The bulk liquid solvents brought in by tanker trucks are pumped into the appropriate tank at the Facility's tank farm. The liquid solvents are drummed as requested by the Facility's customers. Products packaged on-site are packaged only in containers approved for the material by the U.S. Department of Transportation (49 CFR). In addition, one tank is used to blend ethylene glycol and acetic acid.

2. Bulk Dry Chemicals

Van Waters and Rogers stores bulk dry chemicals for distribution to their customers. Some of the bulk dry chemicals are repackaged by the facility into smaller user-friendly containers (Reference 20).

3. Storage

The Exon Avenue operations serve as a permitted long-term storage area for spent solvents destined for reclamation and/or fuels blending at other permitted facilities. Some bulk liquid chemicals are stored in tanks at the Facility's tank farm. Inside the warehouse, both liquid and dry chemicals are stored in drums, bags, and portable tank totes. Outside of the facility, both liquid and dry product is contained in drums and totes stored on and around the concrete loading dock, and around the northeast and southeast boundaries of the Facility (References 9 - 11, 20).

C. Waste Management Operations

Van Waters & Rogers waste management operations or "Chem-Care" program serves as a reverse distribution system (Figure 5). The chemical wastes the Facility receives are taken from the customers and transported to an off-site permitted facility, where the waste is recycled. The recycled material is then sent back to Van Waters &

Rogers for distribution to their customers. Table 2 lists hazardous wastes that are stored at the Van Waters & Rogers facility. These wastes exhibit hazardous characteristics of toxicity and/or ignitability and are classified as liquids (References 2, 5, 13, 20).

1. Waste Acceptance

All hazardous waste shipments, prior to acceptance by Van Waters and Rogers, must be accompanied by a waste survey form, a complete laboratory analysis, and a manifest for the transport and/or storage of each hazardous waste. The waste survey form and the analysis from the generator are used by Van Waters and Rogers and their contracted treatment, storage, disposal (TSD) facility to complete arrangements for waste storage, treatment, and disposal. If the laboratory analysis from the generator is inadequate, a sample of the waste is required by Van Waters and Rogers. The waste sample will then be sent to the permitted TSD facility for analysis. In addition, the manifest is reviewed to make sure that each hazardous waste listed by the generator is one that has been approved by Van Waters and Rogers for the off-site TSDF. A complete profile of the waste is kept on file at the Facility (Reference 19, 20).

2. Chemical Waste Analysis Parameters

Van Waters and Rogers Inc. does not operate its own testing laboratory. Instead, the Facility relies on the analytical capabilities of each permitted treatment facility it utilizes for the treatment/disposal of hazardous waste. Van Waters and Rogers Inc. requires generators to supply them with a current chemical and physical analysis of the hazardous waste before the Facility accepts the waste for transport and storage. Certain tests are required of the generator by the Facility to determine hazardous waste constituents and the proper handling and storage methods of the waste. These tests must include assay tests, specific gravity, water content, flash point, pH, cyanide & sulfide, and TCLP. In addition, the laboratory analyses are repeated by the Facility's contracted TSDF when the accuracy of a generator's original analyses needs assessing in order to check the current status of the waste, re-analyze the waste when the generator's process changes, and when a manifest discrepancy is detected (References 19, 20).

3. Inspection/Handling/Storage

Once the Facility accepts the waste (pick-up approval and/or storage acceptance), each container is checked for proper labeling. Restricted wastes are verified by a land disposal restriction statement and certification, matching the number of containers with the number on the manifest, and inspecting the containers' physical

condition. Van Waters and Rogers will not store restricted wastes for more than a year. In addition, all hazardous waste containers to be stored at the facility must have the date they entered storage written on the side of the drum. When the waste containers meet the acceptance requirements, they are transported to the Facility, unloaded onto the diked, concrete loading dock and stored in the hazardous waste storage area (SWMU No. 2) in 55 gallon drums or 350 gallon portable totes. The storage is short term, 60 days or less. According to plant personnel, the Facility typically ships the hazardous wastes for off-site disposal every 10 days. This area has secondary containment in the form of a concrete dike. The containerized wastes are identified by hazardous waste labels designating the chemical name, the EPA waste code number, the storage start date, and the generator (References 19, 20).

4. Transportation/Disposal

Hazardous waste is transported by Van Waters and Rogers to a permitted TSD facility, when a sufficient amount of waste (i.e., a truckload) has accumulated. This TSD facility then properly disposes of the waste (References 19, 20).

5. Facility - Generated Wastes

Van Waters and Rogers generates both hazardous and non-hazardous wastes at their facility. Non-hazardous wastes are generated in their corrosives drumming and washing procedures (elementary neutralization). Drains and pipes from these areas lead to neutralization holding tanks (SWMU No. 3) where the pH of the waste is tested and neutralized accordingly prior to discharge into the sanitary sewers.

The Facility generates approximately six 55-gallon drums of hazardous waste in the form of line flush from their product tanks every 2 months. The line flush consists of a variety of spent solvents and other cleaning agents used to clean the pumps, hoses, and filling module used in product repackaging operations. When a drum is full, it is manifested to an off-site TSDF or placed into the on-site hazardous waste area (SWMU No. 2) (References 2, 19, 20).

D. Regulatory History

The Van Waters and Rogers regulatory history has been assembled from information in the files pertaining to two environmental programs: 1) the Ohio EPA's Resource Conservation and Recovery Act (RCRA) Program and, 2) the Air Pollution Control Program (administered by Southwest Ohio Air Pollution Control Agency--SWOAPCA).

1. RCRA Regulatory History

Federal Permit

The Facility was formerly owned and operated by the McKesson Chemical Company, to whom interim status for storage operations was granted by USEPA following submittal of a Part A permit application, dated August 31, 1981. After a call-in and subsequent review of the Facility's Federal Part B permit application, USEPA issued a permit on September 29, 1983. This federal permit is to expire on September 29, 1993 (References 18, 19, 20 , 21a).

State Permit

Ohio EPA processed the Exon Avenue facility as a "late-filer" in August, 1982. An Ohio permit processing number (05-31-0629), to obtain a Part A, was issued to McKesson Chemical Company for review and processing of information pertaining to hazardous waste management activities conducted at this location. Ohio EPA reviewed this information at the request of officials from USEPA, Region V. After receiving the company's response to technical deficiencies, the Ohio EPA forwarded their recommendations on December 22, 1983 to Ohio's Hazardous Waste Facility Board (HWFB). A state Part A permit to operate a long term storage facility was issued by HWFB and was entered into the board's journal on June 10, 1985. This permit was to expire on June 10, 1990 (References 19, 20, 21a).

The company operated the Exon Avenue facility until the latter part of 1986 when Van Waters & Rogers, Inc., a subsidiary of Univar, acquired all ownership. The revised Part A and Part B applications, as well as USEPA Notification Form 8700-12, were forwarded to Ohio EPA and USEPA by company representatives on December 22, 1986. In December of 1989, Facility officials submitted application Parts A and B for Ohio EPA review to facilitate renewal of the existing permit. Ohio EPA is currently soliciting for a response from Facility personnel on deficiencies noted during review of the permit renewal package. Once such deficiencies have been addressed, a draft permit package will be transferred to the HWFB for appropriate action (References 2, 19, 20, 21a, 28, 29).

2. Air Pollution Control

Van Waters and Rogers air emissions are under the jurisdiction of the Southwest Ohio Air Pollution Control Agency (SWOAPCA). SWOAPCA is the local air agency designated by OEPA to enforce Ohio's air pollution laws and regulations. SWOAPCA is responsible for reviewing air permit applications, investigating complaints, and

enforcing air regulations in Hamilton County. Van Waters and Rogers has the following permits through this agency:

ORIGINAL PERMIT DATE	TYPE OF PERMIT
1) April 7, 1982	T001 - Storage Units and Fill Lines (20 units)
2) April 7, 1982	T002 - Corrosives Packaging and Tank Truck Loading (4 units)

For permit renewal, these storage units and process areas are inspected every three years. Van Waters and Rogers is in compliance as of their last inspection in April 1991, and has had no complaints (References 24, 25, 27).

3. Water Quality Control

Van Waters and Rogers is not regulated under any water quality program (Reference 26).

E. Compliance History

Table 3 provides a summary of the compliance history for the Van Waters and Rogers Facility including all violations discovered during Ohio EPA and USEPA inspections of the Facility and Ohio EPA reviews of Van Waters and Rogers financial records. The "RTC" column indicates the date on which a violation was documented as having been corrected and the Facility returned to compliance.

Escalation refers to any form of enforcement action which was initiated as a result of a violation.

Van Waters and Rogers' compliance history has been assembled from information contained in Ohio EPA's Division of Solid and Hazardous Waste Management (DSHWM) RCRA files (Reference 21a). A RCRA Land Disposal Restriction inspection is done annually at Van Waters and Rogers.

TABLE 3: SUMMARY OF COMPLIANCE HISTORY

DATE OF INSPECTION: July 19, 1984

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
	No violations cited		

DATE OF INSPECTION: September 25, 1985

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
OAC 3745-54-15(A)	Failure to include inspection records in Operating Record	10/10/85	None

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DATE OF INSPECTION: October 8, 1985

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
OAC 3745-65-75	Failure to file annual report for 1984	7/30/86	None

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DATE OF INSPECTION: July 23, 1986
(Financial Record Review)

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
	No violations cited		

DATE OF INSPECTION: July 23, 1986

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
	No violations cited		

TABLE 3 (continued)

DATE OF INSPECTION: March 26, 1987
(Financial Record Review)

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
	No violations cited		

DATE OF INSPECTION: June 25, 1987

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
OAC 3745-66-12 40 CFR 265.122	Failure to maintain adequate closure plan	10/15/87	None
OAC 3745-65-16(D) OAC 3745-65-16(E) 40 CFR 265.16(d)(e)	Failure to maintain adequate personnel training program and keep personnel training documentation	10/15/87	None

---

DATE OF INSPECTION: August 20, 1987
(Financial Record Review)

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
OAC 3745-55-43 OAC 3745-55-45	Failure to meet financial test requirements	10/22/87	None

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DATE OF INSPECTION: October 30, 1987
(Financial Record Review)

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
	No violations cited		

TABLE 3 (continued)

DATE OF INSPECTION: April 8, 1988
(Financial Record Review)

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
	No violations cited		

DATE OF INSPECTION: August 10, 1988

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
OAC 3745-65-54 40 CFR 265.542	Failure to update contingency plan to reflect personnel changes	8/17/89	None
OAC 3745-65-53(A) OAC 3745-65-53(B) 40 CFR 265.53	Failure to submit contingency plan to local emergency authorities	10/12/88	None

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DATE OF INSPECTION: August 10, 1988
(USEPA LDR Evaluation)

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
	No violations cited		

DATE OF INSPECTION: August 11, 1989

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
	No violations cited		

TABLE 3 (continued)

DATE OF INSPECTION: August 11, 1989
(USEPA LDR Evaluation)

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
40 CFR 265.13	Failure to revise waste analysis plan to meet requirements of 40 CFR part 268	12/3/90	None
40 CFR 268.50	Failure to mark containers to identify contents and date(s) entering storage	12/3/90	None

---

DATE OF INSPECTION: September 6, 1989

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
OAC 3745-55-10	Failure to maintain a closure plan which meets closure performance standards	11/15/89	None
OAC 3745-55-42	Failure to have a detailed, written closure cost estimate in the closure plan	11/15/89	None

---

DATE OF INSPECTION: October 25, 1989
(Financial Record Review)

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
	No violations cited		

TABLE 3 (continued)

DATE OF INSPECTION: June 29, 1990

RULE	DESCRIPTION OF VIOLATION	RTC	ESCALATION
OAC 3745-54-54	Failure to update contingency plan to indicate correct emergency response telephone numbers	8/17/90	None

F. Environmental Setting

1. Meteorology

The climate of the Cincinnati area is characterized by moderate extremes of heat and cold as well as being relatively humid. Summers are warm and humid, but temperatures rarely exceed 100°F. The winters are moderately cold, with an average of about five days of subzero temperatures. Cool and dry weather prevails throughout most of autumn. The normal average of monthly temperatures for the calendar year is 53.4°F (References 4, 16).

Annual Precipitation in the Cincinnati area is 36.97 inches. The wettest months are June and July, with October being the driest month. The maximum monthly precipitation was 10.71 inches in January, 1937; the minimum monthly precipitation was 0.10 inch in October, 1924. Most of the region's moisture is supplied by air moving northward from the Gulf of Mexico (Reference 4). Figures 6 and 7 illustrate the typical wind speeds and directions in the Cincinnati area.

Severe weather, in the form of thunderstorms and tornadoes, is very common. Most thunderstorms occur during the spring and summer. Tornadoes generally occur between April 1 and July 31, approaching from the southwest, west southwest, or the west. Most floods in the area are caused by intense rainfall events. General flooding occurs most

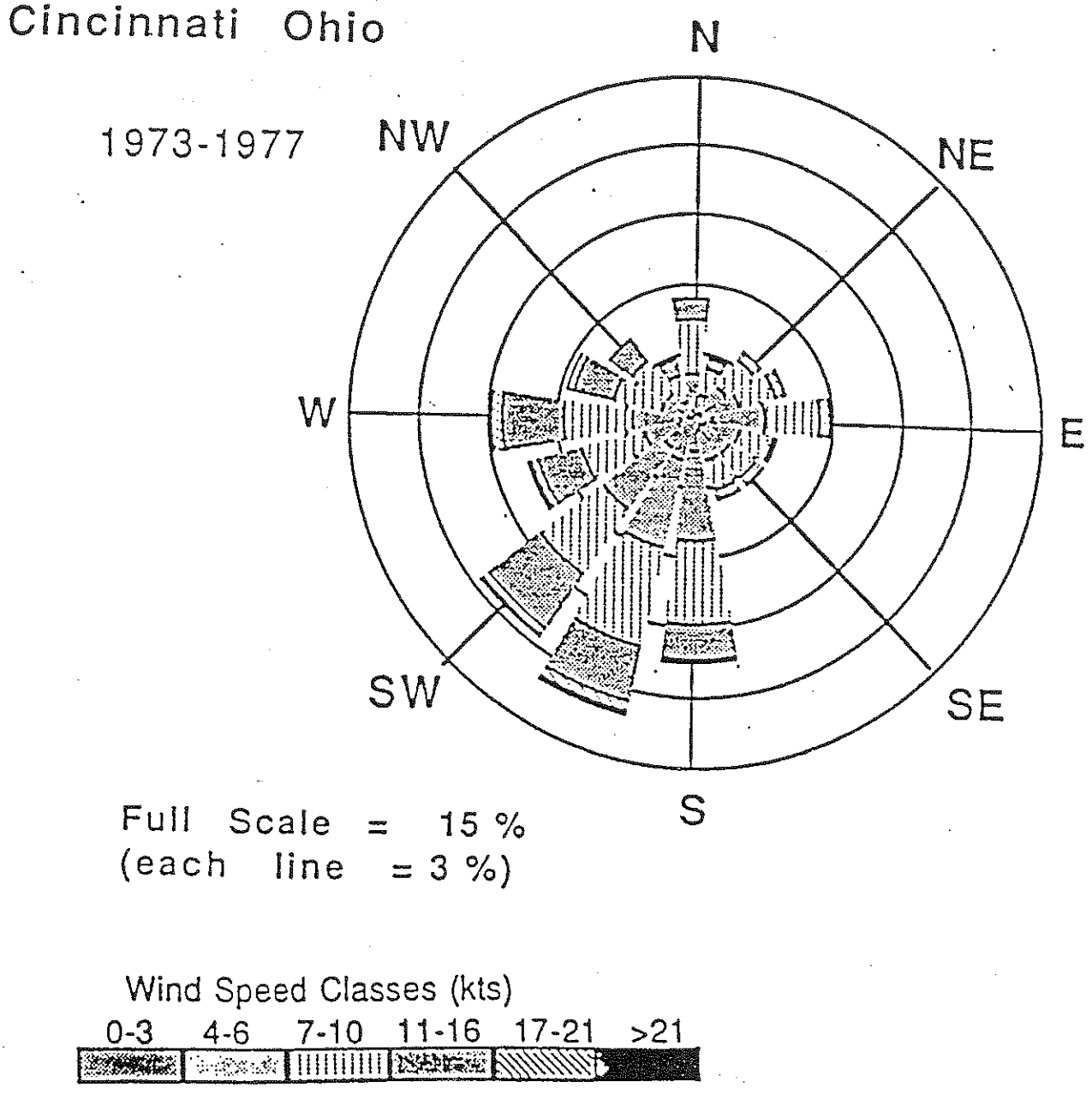


Figure 6. **Wind Rose for Cincinnati, Ohio**

(Klor Kleen, 1983)

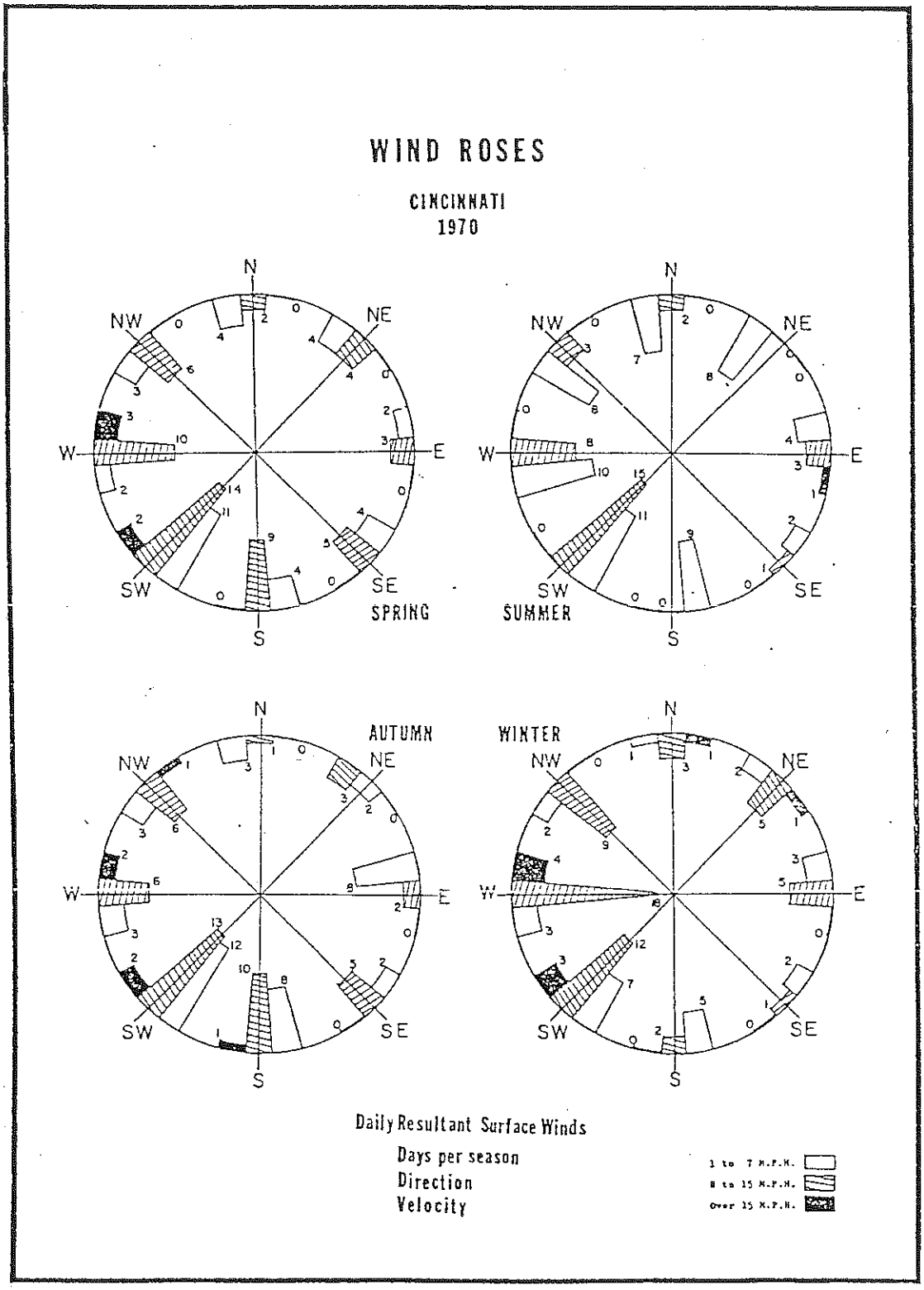


Figure 7. Wind Rose for Cincinnati, Ohio, by Season

(Klor Kleen, 1983)

frequently during January to March and occasionally during August to October (Reference 4).

2. Flood Plains and Surface Waters

The Van Waters and Rogers facility lies within the 100 year flood plain of the Mill Creek Valley (Figure 8). Mill Creek is approximately 500 feet west of the Facility (References 4, 15). The current Mill Creek drainage basin in this area has been highly channelized by the Army Corp of Engineers. No active surface water bodies exist on the Facility property (Reference 9 -11, 15).

3. Soils

The soils at the Van Waters and Rogers facility consist of the Urban land - Patton complex (Figures 9 - 11). This complex consists of Urban land and a deep, nearly level, poorly drained Patton soil which was formed in lacustrine basins. Areas receive runoff from adjacent higher lying soils and are subject to ponding. Areas of this complex contain about 70 percent Urban land and 20 percent Patton silty clay loam. The areas of Urban land and the areas Patton soil are so intricately mixed, or are so small, that it is not practical to separate them at the scale used in mapping (Reference 30).

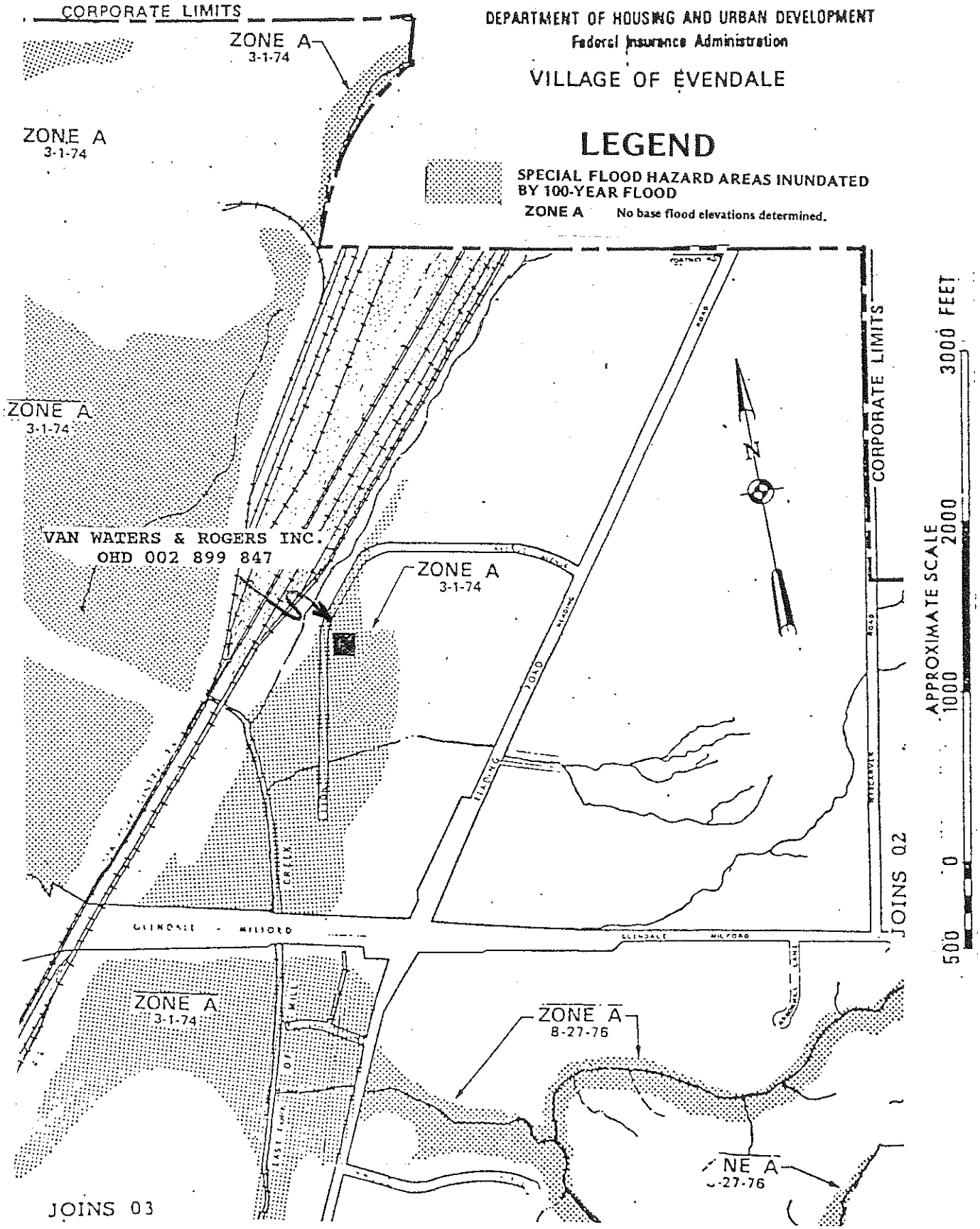
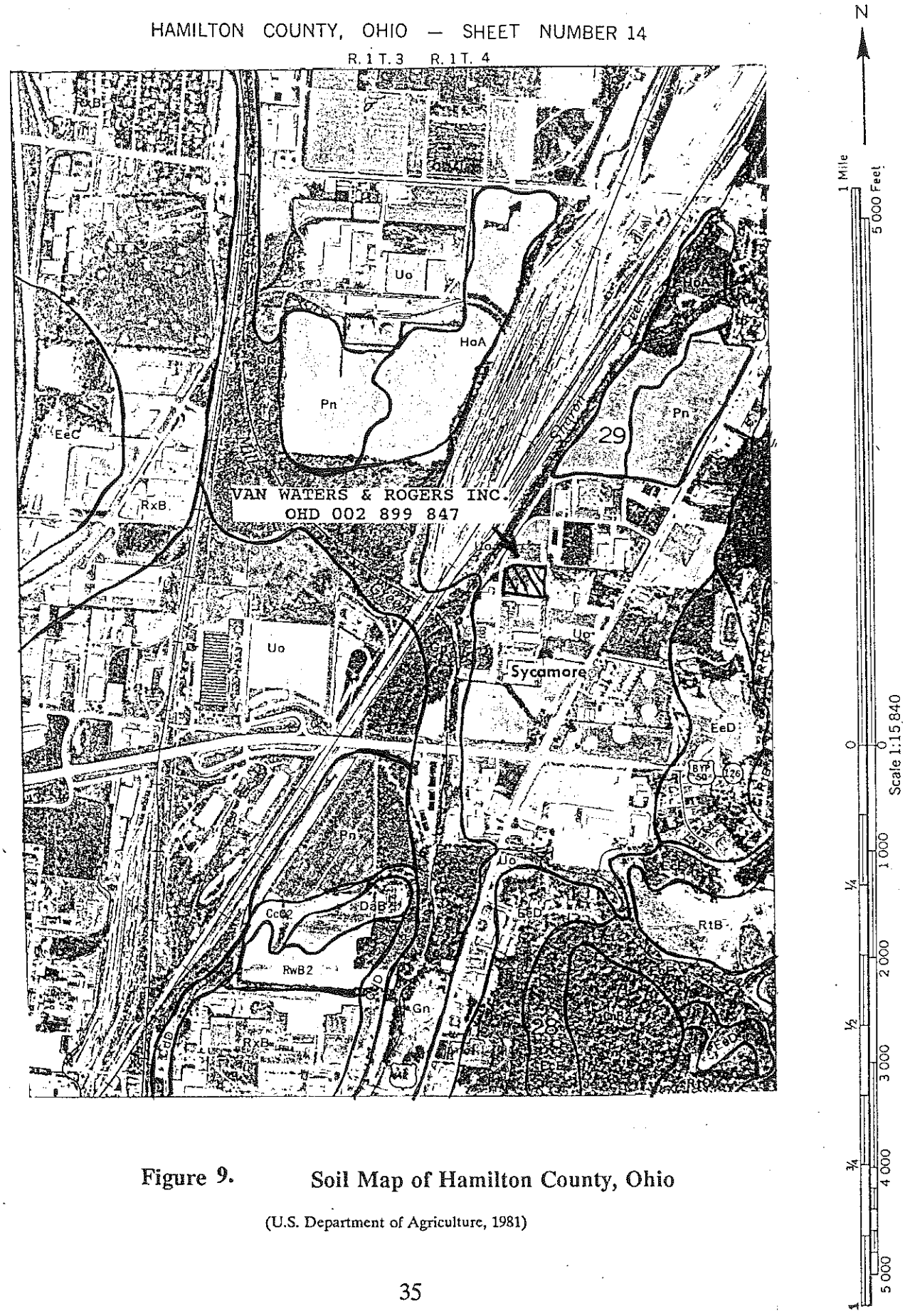


Figure 8. Floodway Map



This map is compiled on 1937 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.

Figure 9. **Soil Map of Hamilton County, Ohio**

(U.S. Department of Agriculture, 1981)

SOIL LEGEND

Map symbols consist of a combination of letters or of letters and a number. The first capital letter is the initial one of the map unit name. The lowercase letter that follows separates map units having names that begin with the same letter, except that it does not separate sloping or eroded phases. The second capital letter indicates the class of slope. Symbols without a slope letter are for nearly level soils or miscellaneous areas. A final number of 2 indicates that the soil is eroded.

SYMBOL	NAME
ArA	Ava silt loam, 0 to 3 percent slopes
ArB2	Ava silt loam, 3 to 8 percent slopes, eroded
ArC2	Ava silt loam, 8 to 15 percent slopes, eroded
AsB	Ava-Urban land complex, 3 to 8 percent slopes
AsC	Ava-Urban land complex, 8 to 15 percent slopes
AvA	Avonburg silt loam, 0 to 2 percent slopes
AwA	Avonburg-Urban land complex, 0 to 2 percent slopes
BoD	Bonnell silt loam, 15 to 25 percent slopes
BoE	Bonnell silt loam, 25 to 35 percent slopes
BoF	Bonnell silt loam, 35 to 60 percent slopes
CcC2	Casco gravelly loam, 8 to 15 percent slopes, eroded
CdD	Casco loam, 15 to 25 percent slopes
CdE	Casco loam, 25 to 35 percent slopes
CdF	Casco loam, 35 to 70 percent slopes
CnB2	Cincinnati silt loam, 3 to 8 percent slopes, eroded
CnC2	Cincinnati silt loam, 8 to 15 percent slopes, eroded
DaB	Dana silt loam, 0 to 4 percent slopes
EcB2	Eden silty clay loam, 3 to 8 percent slopes, eroded
EcC2	Eden silty clay loam, 8 to 15 percent slopes, eroded
EcD	Eden silty clay loam, 15 to 25 percent slopes
EcE	Eden silty clay loam, 25 to 40 percent slopes
EdF	Eden flaggy silty clay loam, 40 to 60 percent slopes
EeB	Eden-Urban land complex, 3 to 8 percent slopes
EeC	Eden-Urban land complex, 8 to 15 percent slopes
EeD	Eden-Urban land complex, 15 to 25 percent slopes
EpA	Eldean loam, 0 to 2 percent slopes
EpB2	Eldean loam, 2 to 6 percent slopes, eroded
EpC2	Eldean loam, 6 to 12 percent slopes, eroded
ErA	Eldean-Urban land complex, 0 to 2 percent slopes
ErB	Eldean-Urban land complex, 2 to 6 percent slopes
FdA	Fincastle silt loam, 0 to 2 percent slopes
FeA	Fincastle-Urban land complex, 0 to 2 percent slopes
FoA	Fox loam, 0 to 2 percent slopes
FoB2	Fox loam, 2 to 6 percent slopes, eroded
FpA	Fox-Urban land complex, 0 to 3 percent slopes
Gn	Genesee loam, occasionally flooded
Go	Genesee-Urban land complex, occasionally flooded
HeF	Hennepin silt loam, 35 to 60 percent slopes
HoA	Henshaw silt loam, 0 to 2 percent slopes
Hu	Huntington silt loam, occasionally flooded
Ju	Jules silt loam, occasionally flooded
Lg	Lanier sandy loam, occasionally flooded
MaB	Markland silty clay loam, 2 to 6 percent slopes
MaC2	Markland silty clay loam, 6 to 12 percent slopes, eroded
MaD2	Markland silty clay loam, 12 to 18 percent slopes, eroded
MaE2	Markland silty clay loam, 18 to 25 percent slopes, eroded
McA	Martinsville silt loam, 0 to 2 percent slopes
McB	Martinsville silt loam, 2 to 6 percent slopes
MnC2	Miamian silt loam, 8 to 15 percent slopes, eroded
MoD2	Miamian-Hennepin silt loams, 15 to 25 percent slopes, eroded
MoE2	Miamian-Hennepin silt loams, 25 to 35 percent slopes, eroded
MuC	Miamian-Urban land complex, 8 to 15 percent slopes
PbB2	Parke silt loam, 3 to 8 percent slopes, eroded
PbC2	Parke silt loam, 8 to 15 percent slopes, eroded
PbD	Parke silt loam, 15 to 25 percent slopes
PbE	Parke silt loam, 25 to 35 percent slopes
PcB	Parke-Urban land complex, 3 to 8 percent slopes
PcC	Parke-Urban land complex, 8 to 15 percent slopes
PfC	Pate silty clay loam, 8 to 15 percent slopes
PfD	Pate silty clay loam, 15 to 25 percent slopes
PfE	Pate silty clay loam, 25 to 35 percent slopes
PhD	Pate-Urban land complex, 15 to 25 percent slopes
Pn	Patton silty clay loam
Po	Pits, gravel
PrA	Princeton sandy loam, 0 to 2 percent slopes
PrB	Princeton sandy loam, 2 to 6 percent slopes
PrC2	Princeton sandy loam, 6 to 12 percent slopes, eroded
RdA	Raub silt loam, 0 to 2 percent slopes
Rn	Ross loam, rarely flooded
RpA	Rossmoyne silt loam, 0 to 3 percent slopes
RpB2	Rossmoyne silt loam, 3 to 8 percent slopes, eroded
RpC2	Rossmoyne silt loam, 8 to 15 percent slopes, eroded
RtA	Rossmoyne-Urban land complex, 0 to 3 percent slopes
RtB	Rossmoyne-Urban land complex, 3 to 8 percent slopes
RtC	Rossmoyne-Urban land complex, 8 to 15 percent slopes
RwB2	Russell silt loam, 3 to 8 percent slopes, eroded
RxB	Russell-Urban land complex, 3 to 8 percent slopes
St	Stonelick fine sandy loam, frequently flooded
SwB2	Switzerland silt loam, 3 to 8 percent slopes, eroded
SwC2	Switzerland silt loam, 8 to 15 percent slopes, eroded
SwD2	Switzerland silt loam, 15 to 25 percent slopes, eroded
SxB	Switzerland-Urban land complex, 3 to 8 percent slopes
SxC	Switzerland-Urban land complex, 8 to 15 percent slopes
Ud	Udorthents, clayey
Uf	Udorthents, loamy
UgB	Urban land-Elkinsville complex, 3 to 8 percent slopes
UgC	Urban land-Elkinsville complex, 8 to 15 percent slopes
Uh	Urban land-Huntington complex, frequently flooded
UmB	Urban land-Martinsville complex, 3 to 8 percent slopes
UmC	Urban land-Martinsville complex, 8 to 15 percent slopes
Uo	Urban land-Patton complex
UrB	Urban land-Rossmoyne complex, 0 to 8 percent slopes
Ux	Urban land-Stonelick complex, frequently flooded
Wa	Wakeland silt loam, occasionally flooded
WbA	Warsaw Variant sandy loam, 0 to 2 percent slopes
WeA	Wea silt loam, 0 to 2 percent slopes
WhA	Whitaker loam, 0 to 2 percent slopes
XfA	Xenia silt loam, 0 to 2 percent slopes
XfB2	Xenia silt loam, 2 to 6 percent slopes, eroded

Figure 10. Soil Map Legend

(U.S. Department of Agriculture, 1981)

CONVENTIONAL AND SPECIAL SYMBOLS LEGEND

CULTURAL FEATURES

BOUNDARIES

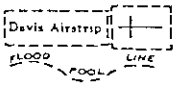
National, state or province

County or parish

Minor civil division

AD HOC BOUNDARY (label)

Small airport, airfield, park, oilfield, cemetery, or flood pool



STATE COORDINATE TICK

ROAD EMBLEMS & DESIGNATIONS

Interstate

Federal

State

RAILROAD

LEVEES

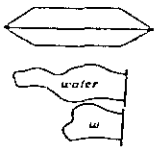
Without road

With road

DAMS

Large (to scale)

Medium or small



PITS

Gravel pit

WATER FEATURES

DRAINAGE

Perennial, double line

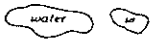
Perennial, single line

Intermittent

Drainage end

LAKES, PONDS AND RESERVOIRS

Perennial

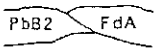


MISCELLANEOUS WATER FEATURES

Wet spot

SPECIAL SYMBOLS FOR SOIL SURVEY

SOIL DELINEATIONS AND SYMBOLS



ESCARPMENTS

Bedrock (points down slope)

SHORT STEEP SLOPE

DEPRESSION OR SINK

SOIL SAMPLE SITE

MISCELLANEOUS

Gravelly spot

Dumps and other similar non soil areas

Rock outcrop (includes sandstone and shale)

Sandy spot

Severely eroded spot

Slide or slip (tips point upslope)

Figure 11. Soil Map Convention and Symbols

(U.S. Department of Agriculture, 1981)

The Urban land part of the complex is covered by streets, parking lots, buildings, and other structures that so obscure or alter the soils that identification of the soils is not feasible.

Typically, the Patton has a surface layer of very dark gray, friable silty clay loam about 7 inches thick. The subsurface layer is very dark gray, mottled, friable and firm silty clay loam about 13 inches thick. The substratum to a depth of about 60 inches is grayish brown, mottled, friable stratified silty clay loam and silt loam. In some places, the soil has been radically altered. Some of the low areas have been filled or levelled during construction, and other small areas have been cut, built up, or smoothed.

Most areas of the Urban Land-Patton complex are artificially drained. In Patton soil areas that are not drained, a high water table is near or above the surface of the soil in the spring and during other extended wet periods. The root zone is deep. Permeability is moderate to moderately slow in the Patton soil. The available water capacity is high or very high, and runoff is very slow or ponded. The organic matter content is very high. The subsoil is highly corrosive to untreated steel. The potential for frost action is very high. Erosion is a problem only if the soil is disturbed and left bare. The subsoil material that is exposed in these areas is not easily tilled for farming. It is sticky when wet and hard when dry (Reference 30).

In undrained areas, the Patton soil is poorly suited to use as sites for buildings; poor natural drainage is the main limitation. The Patton soil is in capability subclass "IIw" (Class II soils

have moderate limitations that reduce the choice of plants or that require moderate conservation practices; subclass "w" denotes that water in or on the soil interferes with plant growth or cultivation). It is not assigned to a woodland suitability subclass (Reference 30).

Included in mapping, and making up about 10 percent of most areas on flood plains, are small areas of Henshaw and Genesee soils.

4. Topography

The Van Waters and Rogers facility lies in the physiographic area referred to by Fenneman (Reference 7) as the Till Plains section of the Central Lowland. The upland surface is generally a broad plateau, ranging in altitude from 700 to 1100 feet above mean sea level (msl). It has been modified by irregular morainal hills and deposits of glacial drift that rise above the general plateau level. Draining approximately 166 square miles, the Mill Creek Valley (Figure 12) has been eroded into this upland surface (Reference 21). Originating in Liberty Township near the village of Princeton in Butler County, Mill Creek follows a southerly course in a broad, flat valley to the Ohio River at Cincinnati (Reference 1).

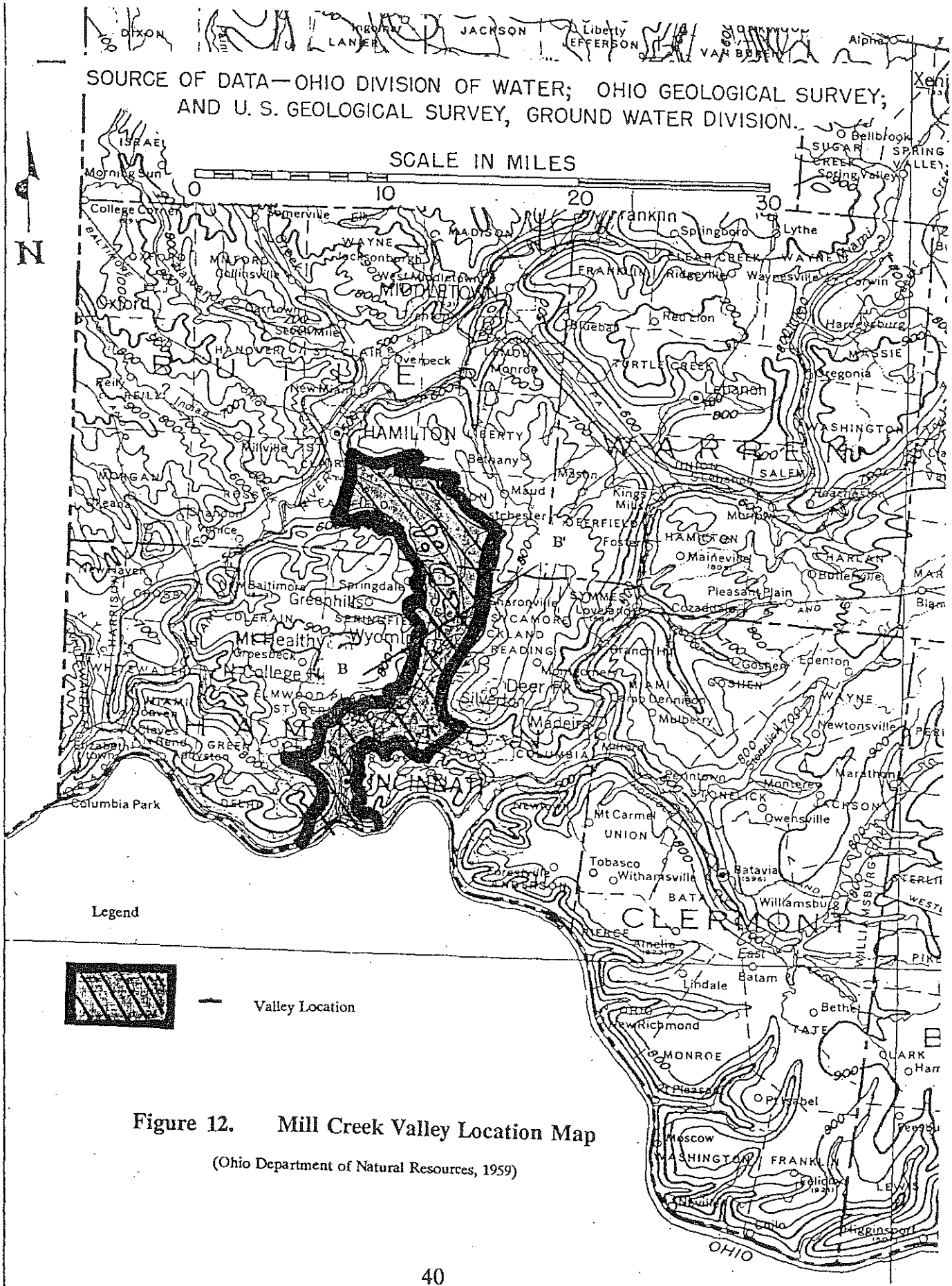


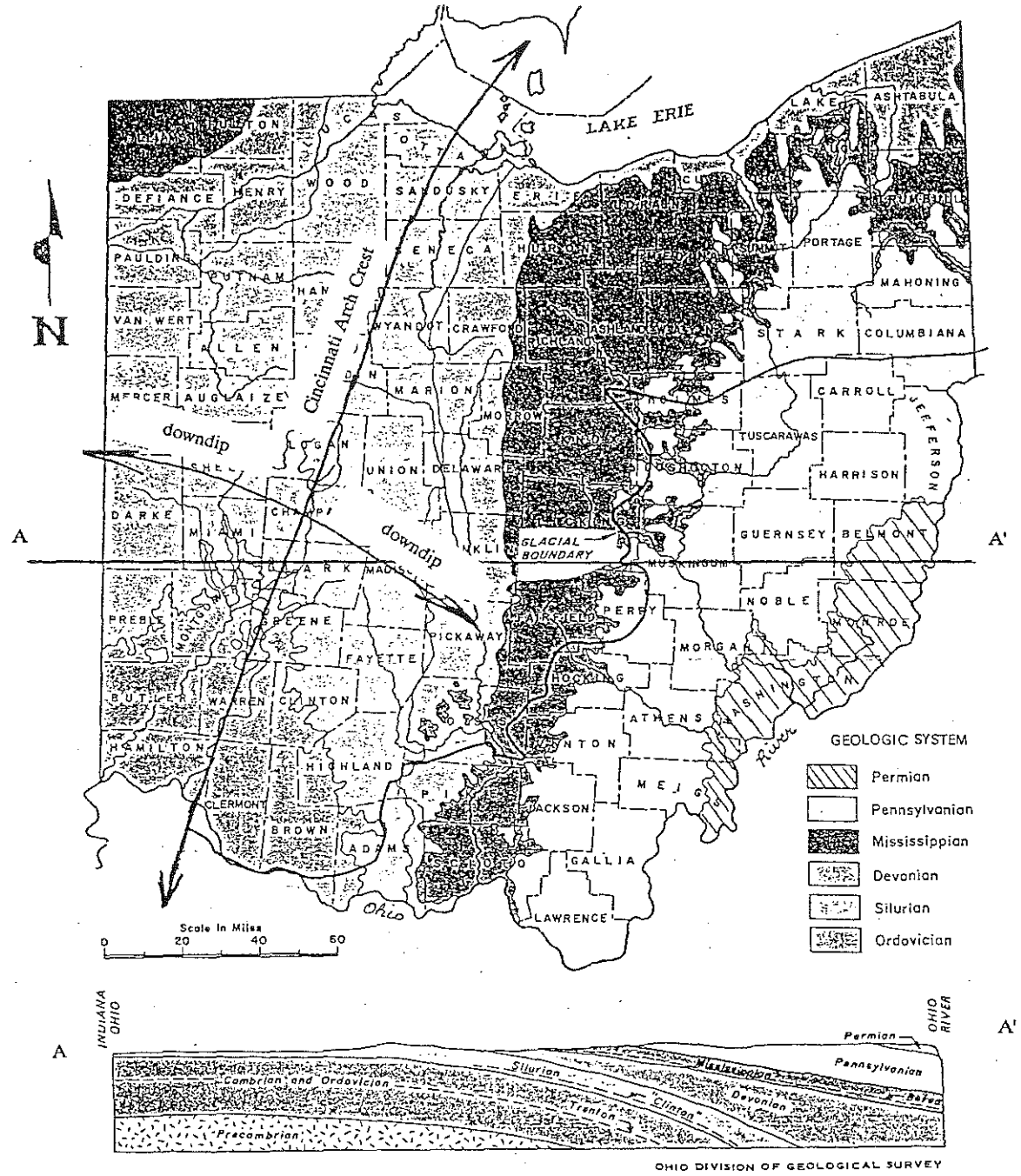
Figure 12. Mill Creek Valley Location Map

(Ohio Department of Natural Resources, 1959)

5. Geology

Hamilton County lies on the crest and flanks of a gentle dome known as the Cincinnati anticline or the Cincinnati Arch (Figure 13), the center of which is near the city of Cincinnati. The rocks dip away gently to the east, north, and west. The regional dip of these rocks typically ranges from 3 to 10 feet per mile to the east and southwest, although the dip may change in either amount or direction locally as a result of small variations in the structural geology (References 17, 21).

Between the neighborhood of Ivorydale and the Western Hills viaduct, the Mill Creek Valley is considerably narrower than north of Ivorydale. The ancestral Licking River, flowing north from Kentucky, was a small stream compared to the ancestral Ohio River, which flowed west through the Norwood Trough and then north through the Mill Creek Valley. The valley walls are steep and dissected by post-glacial erosion. The valley floor is flat and slopes southward from an elevation of 500 feet at Winton Place to about 480 feet in the western part of downtown Cincinnati. Broad remnants of the Illinoisan glacial terrace are found near Spring Grove Cemetery on the west side of the valley and south of St. Bernard on the east side. Mill Creek Valley begins to widen north of Ivorydale; then, north of Lincoln Heights, immediately widens to almost 1.25 miles. (References 15, 17)



GEOLOGIC MAP AND CROSS SECTION OF OHIO

Figure 13. Cincinnati Arch

(Ohio Department of Natural Resources)

The bedrock of any importance underlying the surficial glacial deposits of the area is of Ordovician age. Figure 14 shows the age of the bedrock units, their range in thickness, physical characteristics, and water-bearing properties (Reference 17).

Starting from the base of the outcropping bedrock and working up the section, the so-called Trenton limestone underlies much of this area. The Trenton outcrops only along the Ohio River southeast of the Little Miami River, although it underlies a much larger area at depth. Composed of thin-bedded limestones with partings of calcareous shale, these rocks are dense and contain little or no water. Any water that does occur usually contains objectionable amounts of hydrogen sulfide, making it impractical for use.

Overlying the Trenton limestone is a thick sequence of shales and limestones of the Cincinnatian series, ranging in thickness from about 340 feet to about 900 feet. These rocks include the Eden, Maysville, and Richmond groups of Ordovician age. In all of these groups, both the general features of the strata and also the water-bearing properties of the strata are similar (References 1, 16, 17, 21).

Erosion of this area during several glacial advances and retreats broadened and deepened some existing valleys and cut new ones. The deposits of glacial drift include till (composed chiefly of stiff clay with some boulders and unconsolidated gravel) and lenticular deposits of sand, silt and clay. These deposits occur throughout the valleys ranging up to 400 feet

Geologic formations in the Cincinnati area, Butler and Hamilton Counties, Ohio, and their water supplies

System	Group	Formation	Maximum thickness (feet)	Character of rocks	Water-bearing properties
Quaternary.		Alluvium. Terrace gravels. Loess. Wisconsin till and outwash. Illinoian till and outwash. Old gravels.	280±		Large quantities of water available from outwash in buried valleys. Small supplies from drift on uplands.
Ordovician.	Richmond.	Arnheim shale.	650±	Gray to blue limestone layers, 2–10 inches in thickness, alternating with shale. Prevailingly calcareous throughout.	Yields moderate supplies to shallow wells. Most deep wells obtain very small supplies or none at all. Water in some wells brackish and in a few slightly sulfurous.
	Maysville.	McMillan formation. Fairview formation.			
	Eden.	Latonia shale.	230	Blue and gray shale, weathering brownish or yellowish.	Rarely water-bearing. No successful deep wells known. Yields small supplies to shallow wells.
		Fulton shale.	24	Black shale.	
	Trenton.	Cynthiana formation.	150	Dark hard, compact shale, in layers 2–10 inches or more in thickness, alternating with beds of impure gray limestone of similar thickness.	Carries water locally, but success of drilling is uncertain. Some of the water is salty or sulfurous.
		Limestones of Black River age.	600	Massive, compact grayish limestone, breaking with conchoidal fracture.	More or less water generally present but commonly salty. Not to be depended on for supplies of fresh water.
		Saint Peter sandstone.	400	Porous calcareous sandstone.	Yields large supplies of salty water. Not used at present time because of high chloride content.
Ordovician and Cambrian.			3,000	Varicolored dolomitic limestone and marble. Possibly shale in some places.	Carry little water at depths at which they occur in Ohio.
Cambrian.				Probably prevailingly sandy.	Not penetrated in Ohio. Water likely to be strongly mineralized and unfit for use.

[1] Data compiled from various sources, including Fuller, M. L., and Clapp, F. G., U. S. Geol. Survey Water-Supply Paper 259, pp. 22, 23, 1912; Fenneman, N. M., Ohio Geol. Survey, 4th ser., Bull. 19, pp. 59–70, 1916; Meinzer, O. E., U. S. Geol. Survey Water-Supply Paper 489, pp. 208-209, 1923

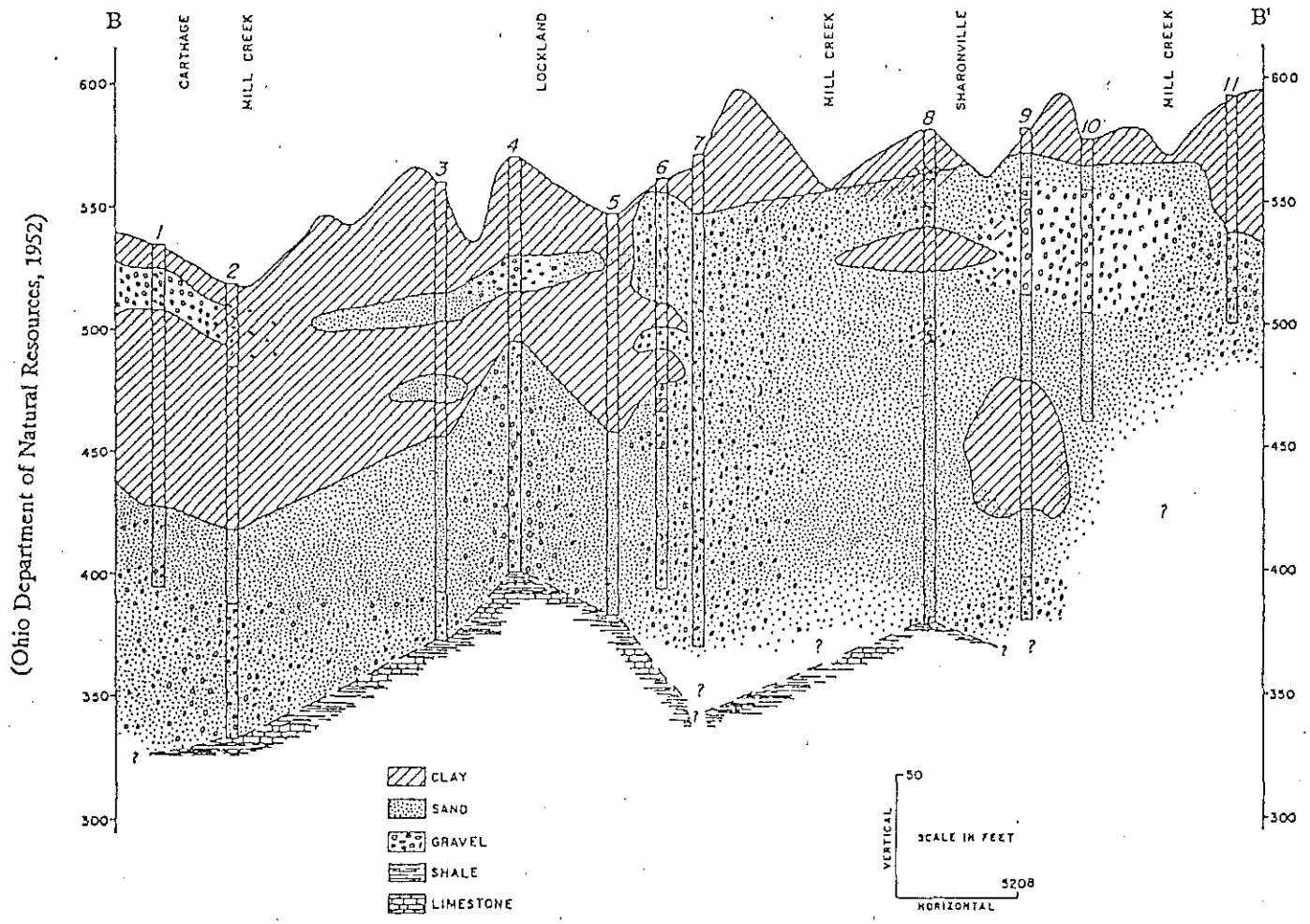
Figure 14. Stratigraphic Nomenclature and Formation Characteristics

or more in the deeper buried valleys. Figure 15 gives a generalized cross-section of the glacial deposits of the Mill Creek Valley area.

The materials that now fill the ancient buried valleys consist of sand, gravel, and clay. They were deposited under complex conditions of sedimentation and vary widely, both horizontally and vertically. Comparisons of many well logs demonstrate that it is extremely difficult and often impossible to trace a particular sand or clay lens from one well to another well less than a quarter of a mile away.

The conditions under which the various deposits were laid down at any given time vary throughout the area. For example, while sand and gravel were being laid down in one locality, a short distance away fine sediments would be settling in the quiet waters of a lake. Glacial ice advanced and retreated short distances repeatedly, each movement causing a change in the type of sediment deposited. Many of the sand and gravel beds appear to have greater continuity in directions parallel to the axes of the valleys and to represent channel deposits of former streams.

In many localities, sand and gravel immediately overlie the bedrock floor of the valleys. This material may be the original deposit of the streams that cut the valleys. Where it has been observed, the gravel and sand is generally well-rounded and clean. The deposits are of such varied thickness as they grade upward into the early Illinoisan glacial outwash that generalizing from one point to another is virtually impossible (References 1, 16, 17, 21).



(Ohio Department of Natural Resources, 1952)

Figure 15. Generalized Cross-Section of Mill Creek Glacial Deposits

The sands and gravels derived from the ice sheet are generally more angular than those transported solely by streams. Scratched and striated stones, displaying the scraping action of ice, may occur. In many localities thick deposits of sand mixed with gravel show that the materials were deposited with little sorting. In other places, gravel containing very little sand indicates that the fine clastic material was completely washed away, leaving only the coarse material behind.

The many crossbedded deposits indicate rapid deposition and shifting currents, which are characteristic of overloaded streams. The glacial conditions that probably existed would have provided large quantities of water and material. In relatively small channels that were choked with glacial debris, the streams split into many smaller channels. These probably wandered back and forth, similar to the overloaded streams flowing from melting glaciers at the present time.

The sand and gravel deposits in the area are composed mainly of limestone fragments and contain only a small percentages of igneous and metamorphic rocks brought southward by the ice sheets. The limestone sands and gravels were derived for the most part from the underlying bedrock and probably were carried a relatively short distance from their original position (References 1, 16, 17, 21).

The outwash derived from the Illinoisan ice sheet is very similar to that from the Wisconsin ice sheet, and usually the two cannot be distinguished. The Wisconsin glacier is reported

to have carried more foreign rocks, such as granite, basalt, and gneiss, from the area north of Lake Superior than did the Illinoisan (Reference 17).

Alluvial deposits of Recent age, composed of clay, silt, sand, and gravel, are usually thin and not well sorted.

6. Ground Water

Ground water occurs in the small pores and voids between the individual particles and fragments that make up a formation. Such voids are usually irregular in shape and interconnect with one another. In sand and gravel deposits, the pores are relatively large due to the large size of the grains. Conversely, in most clays, the pores are extremely small. As these spaces in water-bearing material (i.e., sand and gravel deposits) are usually interconnected, water passes slowly from one pore to another in response to differences of head pressure.

The permeability of rock is its ability to transmit water. This ability is expressed as a coefficient of permeability, defined as the rate of flow of water at 60°F., in gallons per day, through a cross section of 1 square foot under a hydraulic gradient of 100 percent. Generally sand and gravel have high coefficients of permeability; clay has a low coefficient (See previous paragraph)(References 1, 16, 17, 21).

The quantity of ground water annually available in a region depends not only on the quantity of water that falls on the surface and is therefore available for recharge, but also on the permeabilities of the underlying formations. If the surficial material in a region is clay, relatively little water can percolate vertically downward. If a water-bearing formation is overlain by clay, the water in the formation may have to travel in a somewhat horizontal direction from some distant recharge area to the point of withdrawal (Reference 1, 17, 21).

The consolidated shale and limestone bedrock and the unconsolidated glacial drift overlying the bedrock in this area are the principal sources of widely variable quantities of ground water (Reference 1). The limestones and shales are not sufficiently porous to contain large quantities of water. Large water supplies may be developed in the unconsolidated sand and gravel deposits which occur beneath the flood plains of the large rivers, including Mill Creek.

The Mill Creek Valley, extending more than 20 miles north of the Ohio River, is a highly industrialized area in which large quantities of water are needed to support the current and proposed future growth of industrial activity. Beneath the surface of the present valley (See Appendix B for well logs), lies a buried valley containing 200 feet or more of unconsolidated materials, including thick deposits of gravel (Reference 17).

South of the city of Lockland, a fairly continuous layer of relatively impermeable clay, in some areas as thick as 50 feet, divides the gravel deposits into two aquifers. The lower aquifer is the principal source of water in the middle and southern parts of the valley. Recharge to this aquifer occurs primarily in the area north of Lockland.

Although Figures 16 and 17 indicate that it is possible to obtain a ground-water supply of from 100 to 500 gallons per minute from each well drilled, any statement regarding the availability of water must be taken with certain limitations. Potential long-term yields south of Lockland are limited by the amount of recharge available to the water-bearing materials north of lockland and by the rate of movement of water from the intake area to be discharged.

The increasing industrial use of ground water in the Mill Creek Valley has kept pace with the rapid industrial growth of this area though the years. This has resulted in a fairly continuous downward trend of water levels which first occurred in the vicinity of Ivorydale and Carthage in the southern part of the valley. Large declines in water levels due to increased pumping and decreased recharge during the past several years have occurred in the Lockland-Reading area (References 16, 21, 23).

The total amount of ground water withdrawn from the water-bearing materials in this valley has ranged from a high of 17.4 mgd (millions of gallons per day) in 1942 to a low of 6.8 mgd in 1956. Pumpage from wells supplying large individual plants decreased in 1952 when

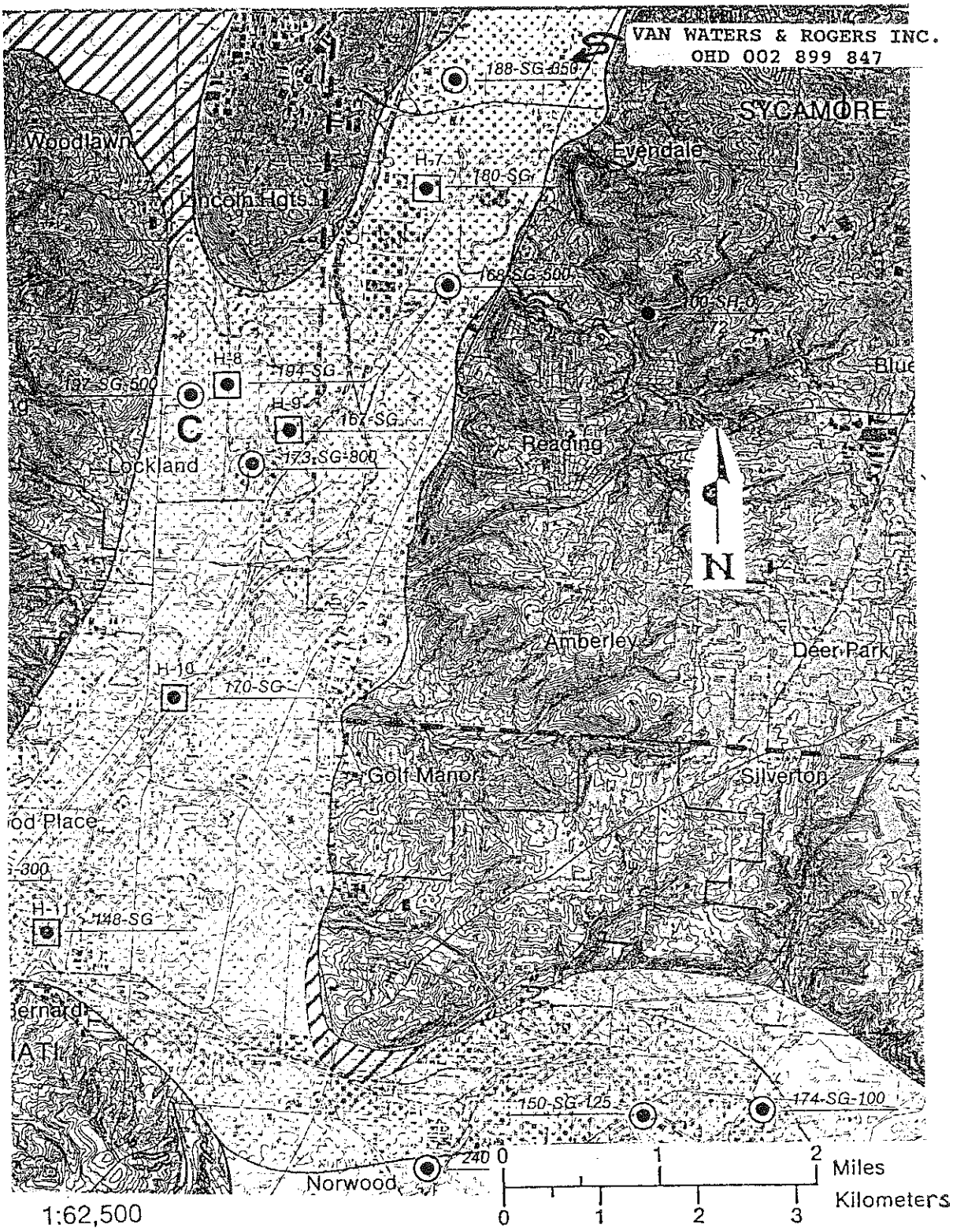


Figure 16. Mill Creek Valley Deposits with Water Yields Map

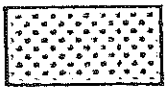
(Ohio Department of Natural Resources, 1986)

Well Yields

AREAS IN WHICH YIELDS OF MORE THAN 500 GALLONS PER MINUTE CAN BE DEVELOPED.

Best ground-water areas in Hamilton County. Permeable sand and gravel deposits in ancient stream channels, suitable for large industrial well field development. Yields of as much as 1,000 gallons per minute have been reported.

AREAS IN WHICH YIELDS OF 100 TO 500 GALLONS PER MINUTE CAN BE DEVELOPED.

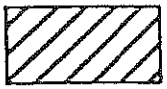


Sand and gravel deposits, generally well sorted, may yield several hundred gallons per minute. Highest yields are reported where recharge is available from nearby streams. Exploratory drilling is necessary to locate coarser materials.

AREAS IN WHICH YIELDS OF 25 TO 100 GALLONS PER MINUTE CAN BE DEVELOPED.

Valley fill contains thick local deposits of sand and gravel. Screened wells encountering permeable deposits yield less than 100 gallons per minute. Shale bedrock will supply very limited yields.

AREAS IN WHICH YIELDS OF 3 TO 10 GALLONS PER MINUTE MAY BE DEVELOPED.



Thick deposits of clay with thin lenses of sand and gravel will yield less than 10 gallons per minute. Wells not encountering sand and gravel produce less than 3 gallons per minute from the underlying limey shale at depths of less than 100 feet.

AREAS IN WHICH YIELDS SELDOM EXCEED 3 GALLONS PER MINUTE.

Poor source of ground water. Bedrock consists of interbedded plastic shales and thin limestone layers. If water is present in the rock, it usually occurs in the upper few feet where the strata have been somewhat weathered and broken. Overlying glacial cover is generally less than 50 feet thick and consists largely of clay. Occasional lenses of sand and gravel will supply small yields. Wells seldom produce more than 3 gallons per minute. Many are inadequate.

Figure 17. Well Yields Map Legend

(Ohio Department of Natural Resources, 1986)

many of the larger plants collectively built a water plant in the Great Miami River Valley which supplies their demand for water. However the pumpage in the Mill Creek Valley has again increased to about 12 mgd, which is exceeding the average annual precipitation by about 4 mgd. This trend, if continued, would lower water levels beneath most of the valley sufficiently to make withdrawal of water from the aquifer no longer economically practical, unless some form of artificial recharge is employed (References 8, 21).

7. Receptors

The Facility of Van Waters and Rogers is located in an industrial and commercial zone within the corporate limits of the village of Evendale, Ohio. Industrial areas surround the Facility (Figure 3) while highly populated urban areas of Cincinnati are found at a greater distance away. Commercial areas, including small restaurants, retail shops, a hotel, and a veterinarian can be found to the east, southeast, and north of the Facility. A railroad switching yard can be found to the west, southwest, and northwest. The Facility lies less than two miles from the well fields of the cities of Reading, Lockland, Glendale and three miles from the wells of the city of Wyoming (Figure 18). These wells draw from the aquifer at a depth of approximately 150 to 200 feet. Ground water flow direction in this area is generally to the south, roughly paralleling the direction of Mill Creek. Potential targets could therefore be expected in this area. The facility is less than 500 feet from Mill Creek and therefore poses a significant potential threat to the waters of this surface tributary if a release were to occur (References 6, 12, 15, 17, 21, 31).

Nonresponsive

IV. SOLID WASTE MANAGEMENT UNIT DESCRIPTIONS AND RELEASE ASSESSMENTS

This section presents detailed descriptions and release assessments of each solid waste management unit identified during the PR and VSI (Table 4 and Figure 19). The descriptions encompass both the units' functional and physical descriptions, dates of operation, waste managed and release controls. The release assessments encompass history of releases and conclusions regarding the release potential to soil/ground water, surface water, air, and regarding the potential to generate subsurface gas.

TABLE 4: FINAL LIST OF SWMUs

1. Concrete Loading/Unloading Dock, Concrete Ramp (both on east side) and the Truck Bay Loading/Unloading Area (southeast corner)

2. Hazardous Waste Storage Pad

3. Drains, Piping, and Drum Wash Pit in Corrosives Building and Acid Neutralization Holding Tanks

4. Vent - Drum Wash Pit

5. Vent - Corrosives Filling Point

6. Vent - Solvent Repack Building

7. Drum - Hazardous Waste Satellite Accumulation Area

8. Tank Cavities and Surrounding Soils - Former Underground Storage Tanks

9. Gravel and Clay around Versene Tank

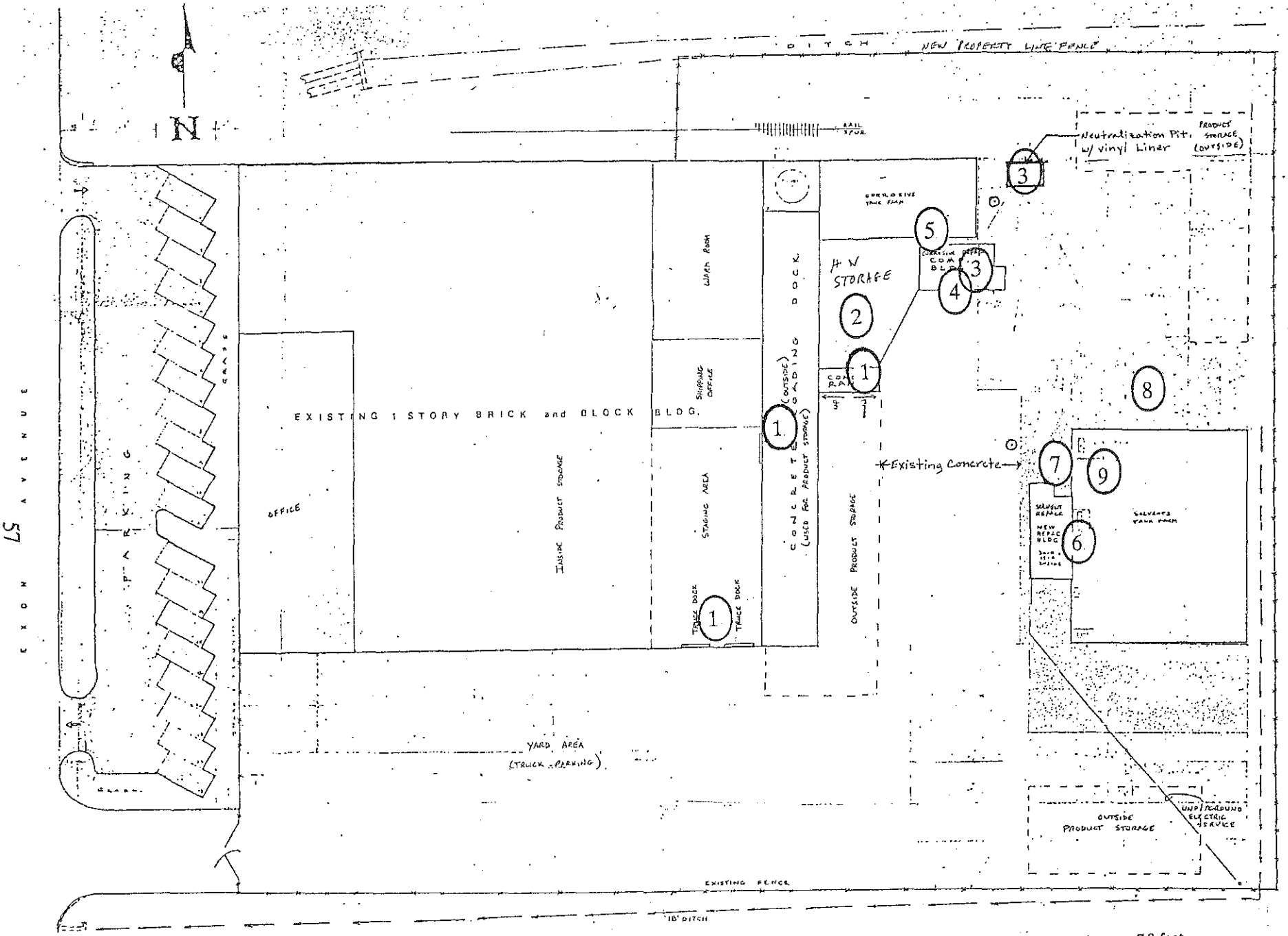


Figure 19. SWMU Location Map

SWMU No. 1

Unit Name:	Concrete Loading/Unloading Dock, Concrete Ramp, (both on east side) and the Truck Bay Loading/Unloading Area (southeast corner) (Photographs 6 & 7)
Unit Description:	This area, partially located in the warehouse, is the main entrance for product and waste. It includes truck bays on the south side, and one door on the east side leading outside across the dock and down the ramp to the hazardous waste storage area (SWMU No. 2).
Date of Start-Up:	This unit began operating in February, 1958 (Reference 2).
Date of Closure:	This unit is currently in operation.
Waste Managed:	This unit manages any waste released from drums during loading/unloading.
Release Controls:	This unit has a concrete pad that is not RCRA sealed or completely diked.
History of Releases:	No evidence of past release was identified through review of the available file material and during the VSI.
Conclusions:	Soil/Groundwater: The release potential to soil/groundwater to medium based on the integrity of the unit. No cracks or gaps were in the concrete pad. The floor was not poured as a single unit. Surface Water: The release potential to surface water is low due to the largely indoor location of the unit and the building design. Air: The release potential to air is low due to the largely indoor location of the unit and the building design. Subsurface Gas: The potential for the generation of subsurface gas is low due to the largely indoor location of the unit and building design.

SWMU No. 2

Unit Name:	Hazardous Waste Storage Pad (Photographs 9, 10, and 11)
Unit Description:	This unit is a diked concrete pad (50'x35') located outside. There were 2 drums of hazardous waste stored here as well as numerous drums of product.
Date of Start-Up:	This unit has a start-up date of approximately 1980.
Date of Closure:	This unit is currently in operation.
Waste Managed:	This unit manages any waste or product spilled in this area.
Release Controls:	The diked concrete pad serves as a release control for this unit. The concrete is not RCRA sealed, and showed some pitting, putting the integrity of this unit in question.
History of Releases:	No evidence of past releases was identified through review of available file material. During the VSI, very minimal staining was observed near the hazardous waste (References 9-11).
Conclusions:	Soil/Groundwater: The release potential to soil/groundwater is medium due to the design and questionable integrity of this unit. Surface Water: The release potential to surface water is low due to the fact that the unit is diked. Air: The release potential to air is low due to the function and design of this unit. Subsurface Gas: The potential for the generation of subsurface gas is medium due to the design and questionable integrity of this unit.

SWMU No. 3

Unit Name:	Drains, Piping and Drum Wash Pit in Corrosives Building (Photograph 13) and the Acid Neutralization Holding Tanks (Photographs 15 & 16).
Unit Description:	This unit consists of 5 parts: 1) the drain under the filling station; 2) the drain under the drum wash area; 3) the acid neutralization holding tanks; 4) the pipes connecting 1, 2, and 3, and; 5) a pipe from the holding tanks to the sewer system.
Date of Start-Up:	The unit has a start-up date of approximately 1961 (Reference 2).
Date of Closure:	This unit is currently in operation.
Waste Managed:	This unit manages waste from two areas: 1) the residue from washing corrosive drums and; 2) the spills and leaks from repackaging corrosives.
Release Controls:	Release controls for this unit are the concrete pad inside the corrosives building, and a dike around the holding tank outside.
History of Releases:	No evidence of past releases was identified through review of the available file material or during the VSI.
Conclusions:	Soil/Groundwater: The release potential to soil/groundwater is medium due to the unit design and inability to determine integrity. Surface Water: The release potential to surface water is medium due to the unit design and inability to determine integrity. Air: This release potential is low due to the function and design of the unit. Subsurface Gas: The potential for the generation of subsurface gas is medium due to unit design and inability to determine integrity.

SWMU No. 4

Unit Name:	Vent - Drum Wash Pit (Photographs 13 and 14)
Unit Description:	This unit is a large hooded vent located over the drum wash pit (SWMU No. 3) which vents errant fumes from the corrosives drum washing process to the outside of the building.
Date of Start-Up:	The unit has a start-up date of approximately 1961 (Reference 2).
Date of Closure:	This unit is currently in operation.
Waste Managed:	This unit manages any errant fumes from the corrosives drum washing process.
Release Controls:	None.
History of Releases:	No documented evidence of past releases was identified during the review of the available file material. But by definition and design, this unit directly releases vapors into the atmosphere.
Conclusions:	Soil/Groundwater: The release potential to soil/groundwater is low due to the physical state of the release (vapors). Surface Water: The release potential to surface water is low due to the physical state of the release (vapors). Air: The release potential to air is high due to the collection and release of errant corrosive vapors. Subsurface Gas: The potential for the generation of subsurface gas is low due to the physical state of the release (vapors) and design of the unit.

SWMU No. 5

Unit Name:	Vent - Corrosives Filling Point (Photograph 12)
Unit Description:	This unit is a vent located over the corrosives filling point. It vents errant fumes from the corrosives drum filling process to the outside of the building.
Date of Start-Up:	The unit has a start-up date of January 1961 (Reference 2).
Date of Closure:	This unit is currently in operation.
Waste Managed:	This unit manages any errant fumes from the corrosives drum filling process.
Release Controls:	This unit has an acid fume washer/scrubber in the vent.
History of Releases:	No evidence of past releases was identified through review of the available file material or during the VSI.
Conclusions:	Soil/Groundwater: The release potential to soil/groundwater is low due to the physical state of the release (vapors). Surface Water: The release potential to surface water is low due to the physical state of the release (vapors). Air: The release potential to air is low to medium due to the presence of an acid fume washer/scrubber. Subsurface Gas: The potential for the generation of subsurface gas is low due to the physical state of the release (vapors) and unit design.

SWMU No. 6

Unit Name:	Vent - Solvent Repack Building (Photographs 19 and 20)
Unit Description:	This unit consists of an enclosed fan connected to two corrugated hoses leading to the two fill points.
Date of Start-up:	This unit has a start-up date of approximately 1979 (Reference 2).
Date of Closure:	This unit is currently in operation.
Waste Managed:	This unit manages any errant vapors from the repackaging of solvents.
Release Controls:	None.
History of Releases:	No documented evidence of past releases was identified during the review of the available file material. But by definition and design, this unit directly releases vapors into the atmosphere.
Conclusions:	Soil/Groundwater: The release potential to soil/groundwater is low due to the physical state of the release (vapors). Surface Water: The release potential to surface water is low due to the physical state of the release (vapors). Air: The release potential to air is high due to the release of errant vapors collected from the repackaging process. Subsurface Gas: The potential for the generation of subsurface gas is low due to the physical state of the release (vapors) and design of the unit.

SWMU No. 7

Unit Name:	Drum - Hazardous Waste Satellite Accumulation Area (Photographs 17 and 18)
Unit Description:	This unit consists of a 55-gallon drum located against the dike of the solvent tank farm next to the solvent repackaging building.
Date of Start-Up:	This unit has a start-up date of approximately 1986.
Date of Closure:	This unit is currently in operation.
Waste Managed:	This unit manages line flush (F002, F003, F005, or D001 wastes) from the pipes leading from the tank farm to the solvent repackaging building (Reference 2).
Release Controls:	The concrete pad (not RCRA sealed) serves as a release control. It is sloped north toward pipes that can be opened to a tributary stream of Mill Creek.
History of Releases:	No evidence of past releases was identified through review of the available file material or during the VSI.
Conclusions:	Soil/Groundwater: The release potential to soil/groundwater is medium due to the design of the unit. Surface Water: The release potential to surface water is medium to high due to the pipes which can be opened to the tributary stream of Mill Creek. Air: The release potential to air is low due to the function and design of the unit. Subsurface Gas: The potential for the generation of subsurface gas is medium due to the design of the unit.

SWMU No. 8

Unit Name:	Tank Cavities and Surrounding Soils - Former Underground Storage Tanks
Unit Description:	This unit consists of soils in an area that used to contain six 10,000-gallon tanks which held isopropyl alcohol, acetone, mineral spirits, methanol, toluene, and xylene and one 10,000-gallon tank that held diesel fuel (Reference 3a).
Date of Start-Up:	This unit has a start-up date of approximately 1979 (Reference 2).
Date of Closure:	The former USTs at that location were removed in 1986. No known documentation exists on whether soils were sampled. This area has since been paved over with concrete (Reference 3a).
Waste Managed:	This unit managed flammable liquids which may have leaked or spilled from the former USTs.
Release Controls:	None.
History of Releases:	Unknown.
Conclusions:	Soil/Groundwater: The release potential to soil/groundwater is high due to the location and definition of the unit. Surface Water: The release potential to surface water is low due to the underground location of the unit. Air: The release potential to air is low due to the function and design of the unit. Subsurface Gas: The potential for the generation of subsurface gas is high due to the potential release of volatile solvents into the unit from the former USTs.

SWMU No. 9

Unit Name:	Gravel and Clay around Versene Tank
Unit Description:	This unit exists inside the dike of the solvent tank farm. It consists of the gravel and underlying clay around the now empty fiberglass Versene Tank which sits on a concrete pad.
Date of Start-Up:	The Versene tank above this unit has a start-up date of approximately 1979 (Reference 2).
Date of Closure:	The Versene tank was emptied August 23, 1990. The tank is still in-place on the concrete pad.
Waste Managed:	This unit managed Versene, which may have spilled or leaked from the tank.
Release Controls:	A concrete pad under the tank serves as a release control for this unit. Once a spill/leak reached the edge of the pad, it would have moved vertically into the underlying gravel. The pad is not RCRA-sealed.
History of Releases:	No evidence of past releases was identified through review of the available file material. During the VSI, the facility informed OEPA that the Versene tank was observed leaking on August 23, 1990. Approximately 1 pound (about 1 pint) of Versene leaked onto the concrete pad under the tank before the tank was drained and taken out of service.
Conclusions:	Soil/Groundwater: The release potential to soil/groundwater is high due to the definition of the unit. Surface Water: The release potential to surface water is low due to the design and location of the unit. Air: The release potential to air is low due to the function and design of the unit. Subsurface Gas: The potential for the generation of subsurface gas is low due to Versene's chemical and physical properties.

V. SUMMARY OF SUGGESTED FURTHER ACTIONS

SUMMARY OF SUGGESTED FURTHER ACTIONS

UNIT NO.	UNIT NAME	OPERATIONAL DATES	SUGGESTED FURTHER ACTION	EVIDENCE OF RELEASE
1.	Concrete Load/Unload Area, Ramp, Truck Bays	1958 - present	None at this time	No
2.	Hazardous Waste Storage Pad	1980 - present	None at this time	No
3.	Drains, Piping, and Drum Wash Pit in Corrosives Bldg. and Acid Neutralization Holding Tanks	1961 - present	Determine integrity	No
4.	Vent--Drum Wash Pit	1961 - present	Ambient air monitoring & compliance with Process Vent Rule	No
5.	Vent--Corrosive Fill Point	1961 - present	Ambient air monitoring & compliance with Process Vent Rule	No
6.	Vent--Solvent Repack Bldg.	1979 - present	Ambient air monitoring & compliance with Process Vent Rule	No
7.	Drum--Hazardous Waste Satellite Accum. Area	1986 - present	Address in Part B permit, surface runoff management practices to prevent release of hazardous waste or hazardous constituents into tributary to Mill Creek	No
8.	Tank Cavities & Soils-Former Location of USTs	1979 - present	Subsurface soil sampling & monitoring well install.	Unknown
9.	Gravel and Clay around Versene Tank	1979 - present	Subsurface soil sampling & monitoring well install.	Unknown

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APPENDIX A

APPENDIX A: VISUAL SITE INSPECTION AGENDA LETTER

MAR 14 1991

MAR 4 1991

MAR 05 1991

CERTIFIED MAIL: P707 061 620
RETURN RECEIPT REQUESTED

5HR-13

Mr. Darrell Wheeler
Operations Manager
Van Waters and Rogers, Inc.
3025 Exon Avenue
Cincinnati, Ohio 45241

RE: Visual Site Inspection
Van Waters and Rogers, Inc.
OHD 002 899 847

Dear Mr. Wheeler:

Ohio Environmental Protection Agency (OEPA) is conducting a RCRA Facility Assessment (RFA) of your facility located at 3025 Exon Avenue, Cincinnati, Ohio. The RFA is required by the 1984 Hazardous and Solid Waste Amendments (HSWA) to RCRA. It requires identification and systematic review of all solid waste streams and materials potentially containing hazardous constituents at the facility. The objective of this assessment is to determine whether or not releases of hazardous wastes have occurred or are occurring at the site which require further investigation. This analysis will provide information to establish priorities for subsequent remedial investigations.

An integral part of this assessment is a visual site inspection (VSI) of your facility to verify the location of all "solid waste management units" (SWMUs) and to make a cursory determination of their condition by visual observation. The VSI supplements and updates data gathered during a preliminary file review. During this site visit, no samples will be taken. A future sampling visit to ascertain if releases of hazardous wastes or hazardous constituents have occurred may be required at a later date.

Assistance of some of your personnel may be required in reviewing solid waste flow(s) or previous management practices associated with wastes and potentially hazardous materials. This site visit is to provide a technical understanding of the present and past waste flows and handling, treatment, storage, and disposal practices. Photographs of each SWMU area and any other likely area of release (Area of Concern or AOC) are to be taken to document the condition of such units and areas at the facility and the waste management procedures used.

The VSI has been scheduled for March 13-14, 1991. Ohio EPA personnel will be present to conduct the VSI. Your cooperation in admitting and assisting them while on site is appreciated.

In preparation for the VSI, the Ohio EPA personnel are required to identify any potentially hazardous conditions likely to be encountered at the site during performance of the VSI and to prepare a safety plan that deals with the hazards, if necessary. You will be contacted by phone in the near future for the purposes of obtaining specific information on the level(s) of personal protection required and materials handled in each area of your facility.

A copy of the proposed VSI agenda is enclosed. Please review and gather the information requested prior to the VSI. Should you have questions regarding this letter, please contact Jane LaGasse, Ohio EPA, Southwest District at 513-285-6357.

Sincerely yours,

Lisa A. Pierard, Chief
Ohio Permitting Section
RCRA Permitting Branch

Enclosure

cc: Sue Nitecki, OEPA/DERR/CO
Dave Sholtis, Assistance Chief, OEPA/DSHWM/CO
Ralph Slone, OEPA-SWDO
Michael Starkey, OEPA/DERR/CO
Steve Bouchard, RPB

ATTACHMENT I

PROPOSED RCRA VISUAL SITE INSPECTION AGENDA

Facility: Van Waters and Rogers, Incorporated
EPA I.D. No. OHD 002 899 247

Location: 3025 Exon Avenue
Cincinnati, Ohio

Facility Contacts: Mr. Darrell Wheeler (Operations Manager)
513-563-2440

Date of Inspection: March 13-14, 1991

Inspection Team:

Donna Bohannon	Ohio EPA/SWDO	513-285-6357
Amy Gibbons	Ohio EPA/SWDO	513-285-6357
Jane LaGasse	Ohio EPA/SWDO	513-285-6357
Mark Lehar	Ohio EPA/SWDO	513-285-6357

Others Present:

Harold O'Connell	Ohio EPA/SWDO	513-285-6357
Mark Boden	Ohio EPA/SWDO	513-285-6357
Steve Bouchard	U.S. EPA/RCRA	312-886-7569

OBJECTIVES OF THE VISUAL SITE INSPECTION:

The Hazardous and solid Waste Amendments (HSWA) of 1984 requires corrective action for releases of hazardous wastes and solid wastes containing hazardous constituents at facilities that manage hazardous wastes. The corrective action authority extends to all solid waste management units (SWMUs) and other likely release areas (Areas of Concern - AOCs) at the facility. The first phase of the corrective action program, as established by the U.S. EPA, is performance of a RCRA Facility Assessment (RFA). The steps in the RFA process include a preliminary review (PR) of available file information, a visual site inspection (VSI) of the facility and, if necessary, a sampling visit (SV). A preliminary review of the file material has been performed for this facility, and a VSI has been deemed necessary. the purposes of the VSI are:

1. To collect all available, relevant information on solid waste management practices that have been used at the site;

2. To gain first-hand information regarding the identification,location, construction, configuration, capacity and/or size, function served, method of operation, release control provisions and condition of each SWMU;

3. To confirm by visual inspection and discussion with facility representatives the information collected during the PR;

4. To survey the site for additional SWMUs and AOCs not identified in the review of file material;

5. To identify potential sample points for possible future sampling activities;

6. To review the site information and collect additional information to address the information needs identified during the PR, and;

7. To take photographs of all SWMUs and AOCs.

INSPECTION PLAN

Ohio EPA will send a field team to perform a Visual Site Inspection. Due to the size of the facility and the tentative number of SWMUs and AOCs identified, a one-day inspection is anticipated, however two days will be scheduled. The team will inspect all past and current solid waste and hazardous waste handling, storage, treatment and disposal areas on-site. Outdoor and indoor waste generation, collection and accumulation areas in production facilities will be inspected as necessary to acquire a complete understanding of waste streams, waste flows and waste handling procedures. The team will also identify, inspect and document potential pathways for release of hazardous constituents into the environment. Facility staff will be interviewed to develop a better understanding of past and current waste management practices. At this time, the facility is requested to provide any recent environmental monitoring or sampling data that may not be in the current Ohio EPA files. These data may include any soil characterization, hydrogeologic data, air quality data, analytical tests of wastes or any other studies relevant to the environmental conditions at the site.

The overall rationale of this inspection is to enable the team to trace the waste flows through the entire facility, from the point of inception or generation, to ultimate disposal. The schedule on the following page has been prepared based on the PR, and is intended as an outline for a thorough and efficient inspection of all SWMUs and AOCs on the site. Some adjustments to the proposed agenda may be necessary to accommodate facility staff, location of the units, operational constraints or unforeseen conditions. The proposed schedule will be reviewed during the introductory meeting and adjusted, if necessary, at that time. The VSI field team will make every reasonable effort to conform to the facility's normal hours of operation.

A general schedule for the VSI has been developed based on the information gathered during the PR. Due to the field team's lack of information about exact SWMU locations, it is suggested that a facility map be made available during the introductory meeting so that an expeditious inspection schedule can be finalized between the inspection team and facility representatives. Also at the introductory meeting, the SWMU list and information needs will be reviewed with facility representatives.

PROPOSED VSI SCHEDULE

TIME	ACTIVITY
DAY 1	
8:30 - 9:00 a.m.	Introductory meeting with facility representatives. Discuss agenda, safety and health considerations, and access to facility hazardous waste storage and management areas.
9:00-10:00 a.m.	Review facility history, including past and present waste streams and waste handling/ disposal methods. Identify any SWMUs and AOCs not identified in the file review. Discuss information needs (see Attachment 3).
10:00 a.m.-12:00	Tour of facility generally following the waste streams associated with the activities on site. Begin with the unloading, testing, storage, and transfer areas.
12:00-1:00 p.m.	Lunch Break.
1:00-5:00 p.m.	Complete tour of any facility process area. Visit any remaining areas where wastes are collected, stored, treated or disposed. Continue outdoors if necessary to complete waste stream.
DAY 2	
8:30a.m.-4:00p.m.	Finish VSI, if needed. Conduct close out meeting.

ATTACHMENT 2

TENTATIVE LIST OF SWMUs

1. Concrete loading/unloading area
2. Yard storm drains (2)
3. Rail car loading/unloading area (spur)
4. Neutralization pit
5. Hazardous waste storage area
6. Corrosives building
7. Corrosives piping and drain from neutralization pit
8. Buried tanks (7)
9. Repack building
10. Tank farm
11. Corrosives dike area

ATTACHMENT 3

ADDITIONAL INFORMATION NEEDS AND ITEMS FOR REVIEW DURING VSI

1. Identify any additional SWMUs not listed in the tentative list of SWMUs. Include a brief description of wastes managed in these units and the period of operation. Units to identify include, but are not limited to, the following:

   * Above ground and underground waste storage tanks.

   * Abandoned storage tanks.

   * Waste storage units for solid and hazardous wastes which fall under the 90-day exemption from RCRA permitting requirements.

   * All waste handling areas and associated activities including loading zones, transfer areas, and waste accumulation areas.

2. Provide the following information for all underground storage tanks:

   * Description of any releases;
   * Age of tank;
   * Location of tank;
   * Materials of construction;
   * Date of installation;
   * Date of removal or discontinuation of use, if applicable.

3. Provide an up-to-date facility map suitable for delineating the location of all SWMUs, AOCs, buildings and dimensions thereof, and tanks. The facility map should show site topography, underground and above ground piping, storm water ditches, and streams. If this is not practical, separate design drawings for this information should be provided (100 or 200 scale, 2 copies).

4. Provide an area wide topographic map showing property boundaries (including total facility area, acres), locations of potable wells, adjacent property owners, location of community water supplies, streams (including classifications), and closest recreational facilities (1000 or 2000 scale, 2 copies).

5. Provide a history of facility ownership, land use and waste management.

6. Provide start-up date of the facility and describe any processes and/or disposal changes which have altered the facility profile over the life of the operation.

7. Provide quantities and dates of any spills, leaks or releases that occurred at this site.

8. Describe on-site remediation measures, if any.

9. For those SWMUs identified, provide a list of associated air pollution control equipment and the permit history of each.

10. Provide details pertaining to any ground water monitoring, soil sampling or hydrogeology studies. Provide information on the depth to ground water.

11. Describe past and present waste disposal procedures.

12. Describe the EPA protocol used on wastes generated at the site.

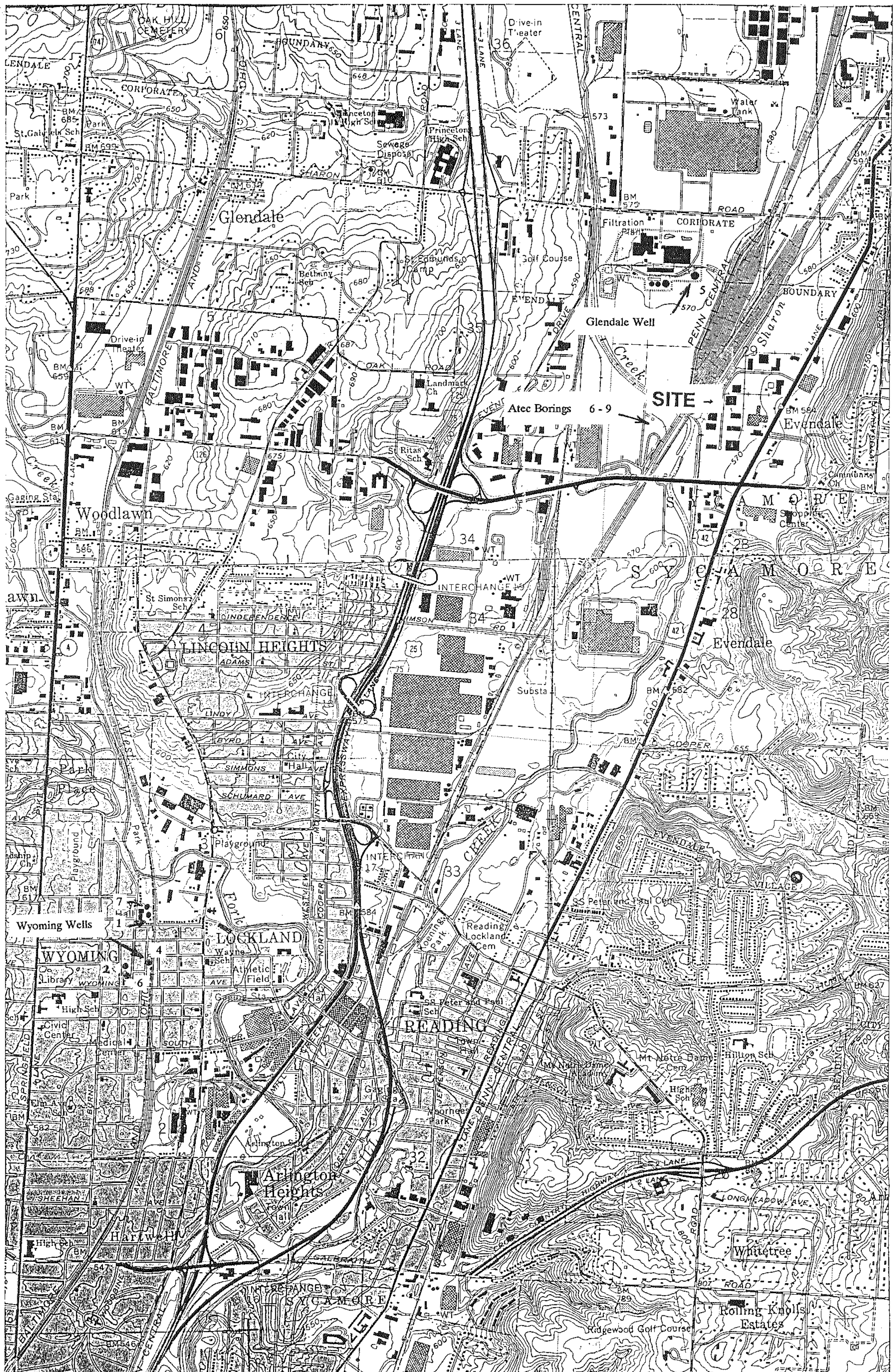
13. Provide current and historical diagrams showing industrial wastewater, sanitary sewer and storm water pipelines at the facility, including all sumps, roof drains, etc.

14. For each SWMU in Attachment 2, provide the following information:

    * location on facility map;
    * dates of operation;
    * design features (e.g., material of construction, dimensions of unit, release controls);
    * history of unit's construction (e.g., indicate whether current release controls have been in place over the life of the unit);
    * run-on/run-off controls at the unit;
    * details on the method of waste transfer, including transfer release controls;
    * details of any waste management practices over the life of the unit;
    * description of wastes managed and their volume;
    * step-by-step description of any processes (not necessarily waste related) occurring at the facility, including flow charts for clarification of these processes;
    * history of releases;
    * regulatory status, and;
    * closure information, if applicable.

APPENDIX B

APPENDIX B: WELL LOGS



SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET

DATUM IS MEAN SEA LEVEL

ATEC Associates, Inc.

Consulting Geotechnical & Materials Engineers

LABORATORY REPORT OF SOIL EXPLORATION

Reply To: 11306 Tamarco Drive
Cincinnati, Ohio 45242

Home Office: Indianapolis
Offices: Atlanta/Baltimore/Birmingham/Cincinnati/Dallas/Freeport/Houston/Louisville/Salisbury/Washington, DC/York
Affiliates: Beckley/Norfolk/Santa Rosa/Riyadh

Client: Ashland Chemical Company — Boring = 6
Architect Engineer: — Job = 79537
Project Name: Proposed New Facilities — Drawn By: ADM
Project Location: Evendale, Ohio — Approved By: RTS

DRILLING and SAMPLING INFORMATION

Date Started 3/15/79 — Hammer Wt 140 lbs
Date Completed 3/15/79 — Hammer Drop 30 in
Drill Foreman ML — Spoon Sampler O.D. 2 in
Inspector — Rock Core Dia in
Boring Method HSA — Shelby Tube O.D. in

SOIL CLASSIFICATION (SURFACE ELEVATION– 566.7)	STRATUM DEPTH	DEPTH SCALE	SAMPLE NO.	SAMPLE TYPE	% RECOVERY	GROUND WATER	TEST DATA: Standard Penetration Test N, Blows/Ft.	Unconfined Compressive Strength q_u Tons/Ft.^{2}	Pocket Penetrometer q_p Tons/Ft.^{2}	Natural Dry Density lbs./cu. ft.	Water Content %	Atterberg Units LL - Liquid Limit PL - Plastic Limit
TOPSOIL	1.5		1	SS	80		8		3.0		18	
Dark brown to black SANDY SILTY CLAY and ORGANIC MATTER. moist, stiff	4.5		2	SS	100		14		3.5		18	
Mottled brown and gray very SANDY SILTY CLAY, with some fine gravel. moist, medium stiff	8.0	5	3	SS	100		8		1.75		16	LL=26 PL=17
Gray CLAYEY SAND, with some fine gravel. moist, dense	8.5		4	SS	100		19	0.75 / 0.75			15 / 13 / 7	
Brown grading to grayish brown fine to coarse SAND and fine to coarse GRAVEL. moist, medium dense to dense		10	5	SS	100		62				4	
		15	6	SS	50		37				3	
		20	7	SS	60		48				3	
very moist below 27.0 feet		25	8	SS	40		29				3	
		30	9	SS	100		16				14	
Gray fine SAND. wet, medium dense	34.0 / 35.0	35	10	SS	100		20				19	
Boring discontinued at 35.0 feet depth. NOTE – Scale change at 10.0 feet depth.		40										

SAMPLER TYPE
SS – DRIVEN SPLIT SPOON
ST – PRESSED SHELBY TUBE

GROUND WATER DEPTH
▽ AT COMPLETION Dry FT.
▽ AFTER — HRS — FT.

BORING METHOD
HSA—HOLLOW STEM AUGERS
CFA—CONTINUOUS FLIGHT AUGERS

ATEC Associates, Inc.

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Reply To: 11306 Tamarco Drive
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Affiliates: Beckley/Norfolk/Santa Rosa/Riyadh

Client: Ashland Chemical Company — Boring = 7
Architect Engineer: — Job = 79537
Project Name: Proposed New Facilities — Drawn By: ADM
Project Location: Evendale, Ohio — Approved By: RTS

DRILLING and SAMPLING INFORMATION

Date Started: 3/16/79 — Hammer Wt: 140 lbs
Date Completed: 3/16/79 — Hammer Drop: 30 in
Drill Foreman: ML — Spoon Sampler O D: 2 in
Inspector: — Rock Core Dia.: in
Boring Method: HSA — Shelby Tube O D: in

SOIL CLASSIFICATION (SURFACE ELEVATION– 566.8)	STRATUM DEPTH	DEPTH SCALE	SAMPLE NO.	SAMPLE TYPE	% RECOVERY	GROUND WATER	Standard Penetration Test N, Blows/Ft.	Unconfined Compressive Strength q_u Tons/Ft.^{2}	Pocket Penetrometer q_p Tons/Ft.^{2}	Natural Dry Density lbs./cu. ft.	Water Content %	Atterberg Units LL = Liquid Limit PL = Plastic Limit
TOPSOIL	1.5		1	SS	60		4		2.25		17	
Dark brown to black SANDY SILTY CLAY and ORGANIC MATTER. moist, stiff	4.5		2	SS	70		15					
Mottled brown and gray very SANDY SILTY CLAY, with some fine gravel. moist, medium stiff	7.5	5	3	SS	70		14	0.9	1.5		15	
Brown medium to coarse SAND and GRAVEL. moist, medium dense	10.0	10	4	SS	40		23				6	
Grayish brown to gray fine to medium SAND and fine to medium GRAVEL. moist, dense		15	5	SS	80		42				5	
			6	SS	100		31				4	
		20	7	SS	100		34				4	
		25	8	SS	100		32				4	
Brown coarse SAND and fine to coarse GRAVEL. wet, dense	26.0											
		30	9	SS	100		32				14	
with a silty clay seam or lense in sample #10	35.0	35	10	SS	60		68		0.5		8	
Boring discontinued at 35.0 feet depth. NOTE – Scale change at 10.0 feet depth.		40										

SAMPLER TYPE

GROUND WATER DEPTH
▽ AT COMPLETION Dry FT.

BORING METHOD
HSA–HOLLOW STEM AUGERS

AEC Associates, Inc.

Consulting Geotechnical & Materials Engineers

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Reply To: 11306 Tamarco Drive
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Home Office: Indianapolis
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Affiliates: Beckley/Norfolk/Santa Rosa/Riyadh

Client: Ashland Chemical Company — Boring = 8
Architect Engineer: — Job = 79537
Project Name: Proposed New Facilities — Drawn By: ADM
Project Location: Evendale, Ohio — Approved By: RTS

DRILLING and SAMPLING INFORMATION

Date Started 3/16/79 — Hammer Wt 140 lbs
Date Completed 3/16/79 — Hammer Drop 30 in.
Drill Foreman ML — Spoon Sampler O D 2 in
Inspector — Rock Core Dia — in
Boring Method HSA — Shelby Tube O D — in

SOIL CLASSIFICATION SURFACE ELEVATION– 566.7	STRATUM DEPTH	DEPTH SCALE	SAMPLE NO.	SAMPLE TYPE	% RECOVERY	GROUND WATER	TEST DATA: Standard Penetration Test N, Blows/Ft.	TEST DATA: Unconfined Compressive Strength q_u Tons/Ft.^{2}	TEST DATA: Pocket Penetrometer q_p Tons/Ft.^{2}	TEST DATA: Natural Dry Density lbs./cu. ft.	TEST DATA: Water Content %	TEST DATA: Atterberg Units LL=Liquid Limit PL=Plastic Limit
TOPSOIL	1.5		1	SS	70		11		4.0		14	
Dark brown to black SANDY SILTY CLAY and ORGANIC MATTER. moist, very stiff	4.0		2	SS	100		19		2.5		20	LL=46 PL=30
Mottled brown and gray very SANDY SILTY CLAY, with some fine gravel. moist, medium stiff	7.5	5	3	SS	100		9		2.0		20	LL=32 PL=21
Brown and gray SANDY SILTY CLAY. moist, medium stiff	9.5		4	SS	80		10		1.5 1.0		20 17	
Brown grading to gray brown fine to coarse SAND and fine to coarse GRAVEL. moist, medium dense to very dense		10	5	SS	70		54				5	
		15	6	SS	60		30				5	
		20	7	SS	80		67				5	
Wet below 27.0 feet depth.		25	8	SS	60		19				6	
	30.0	30	9	SS	100		35				7 14	
Grayish brown SANDY CLAYEY SILT. moist, very stiff	30.5 35.0	35	10	SS	100		16				21	
Gray fine SAND., wet, medium dense												
Boring discontinued at 35.0 feet depth.		40										
NOTE – Scale change at 10.0 feet depth.						PVC Pipe installed to 18.0 feet depth						

SAMPLER TYPE
SS – DRIVEN SPLIT SPOON
ST – PRESSED SHELBY TUBE

GROUND WATER DEPTH
▽ AT COMPLETION ____ FT
▽ after 10 days dry @ 18 ft

BORING METHOD
HSA–HOLLOW STEM AUGERS
CFA–CONTINUOUS FLIGHT AUGERS

ATEC Associates, Inc.

Consulting Geotechnical & Materials Engineers

LABORATORY REPORT OF SOIL EXPLORATION

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Affiliates: Beckley/Norfolk/Santa Rosa/Riyadh

Client: Ashland Chemical Company — Boring = 9
Architect Engineer: — Job = 79537
Project Name: Proposed New Facilities — Drawn By: ADM
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Drill Foreman ML — Spoon Sampler O D 2 in.
Inspector — Rock Core Dia — in.
Boring Method HSA — Shelby Tube O D. 3 in.

SOIL CLASSIFICATION (SURFACE ELEVATION– 566.6)	STRATUM DEPTH	DEPTH IN SCALE	SAMPLE NO.	SAMPLE TYPE	% RECOVERY	GROUND WATER	Standard Penetration Test N, Blows/Ft.	Unconfined Compressive Strength q_u Tons/Ft.^{2}	Pocket Penetrometer q_p Tons/Ft.^{2}	Natural Dry Density lbs./cu. ft.	Water Content %	Atterberg Units LL = Liquid Limit PL = Plastic Limit
TOPSOIL	1.5		1	SS	30		12		4.0		15	
Dark brown to black SANDY SILTY CLAY and ORGANIC MATTER. moist, very stiff	4.5		2	SS	80		21		4.5		12	
Mottled brown and gray very SANDY SILTY CLAY, with some fine gravel. moist, soft	8.0	5	3	SS	15		4		1.25		19	
			1	ST	100						24	
Gray-brown fine to medium SAND, with some fine to medium gravel. moist, dense to very dense		10	4	SS	50		37		2.0		10	
		15	5	SS	70		44				9	
	20.0	20	6	SS	70		76				4	
Boring discontinued at 20.0 feet depth.		25										

SAMPLER TYPE
SS – DRIVEN SPLIT SPOON
ST – PRESSED SHELBY TUBE

GROUND WATER DEPTH
▽ AT COMPLETION Dry FT.
▽ AFTER — HRS — FT

BORING METHOD
HSA–HOLLOW STEM AUGERS
CFA–CONTINUOUS FLIGHT AUGERS
DC–DRIVING CASING

REFERENCE #15
SITE NAME Borden Chemical
SITE ID D0689320 11
NO. 179970

WELL LOG AND DRILLING REPORT

County Hamilton Township Springfield Section of Township

Owner City of Wyoming Address [redacted]

Location of property

CONSTRUCTION DETAILS

Casing diameter 16" Length of casing 164'
Type of screen Cook Length of screen 30'
Type of pump
Capacity of pump
Depth of pump setting
Date of completion 8-1-60

BAILING OR PUMPING TEST

Pumping rate 750 G.P.M.
Duration of test 24 Hrs.
Drawdown 16 ft. Date 8-24-60
Developed capacity 500 GPM
Static level - depth to water 132 Ft.
Pump installed by

WELL LOG		
Formation	From	To
Clay & Hard Pan	0	138
Fine Sand	138	170
Fine Sand, Some Gravel	170	175
Coarse Sand	175	180
Coarse Sand, Some Gravel	180	185
Medium Gravel	185	190
Boulders & Gravel	190	193
Rock	193	194

SKETCH SHOWING LOCATION

[redacted]

N.

W. E.

S.

Drilling Firm Diehl Pump & Supply Co. Date April 10 1961

Address 3985 Race Rd. Cincinnati 11 Ohio Copied by j.c.

(1)

LEASE USE PENCIL OR TYPEWRITER
DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio 43212

No. 342965
Municipal

County [illegible] Township [illegible] Section of Township

Owner [illegible] Address Nonresponsive

Location of property Nonresponsive

CONSTRUCTION DETAILS

Casing diameter 16" Length of casing 160'
Type of screen [illegible] Length of screen 35'
Type of pump
Capacity of pump
Depth of pump setting
Date of completion 7-22-64

BAILING OR PUMPING TEST

Pumping Rate 500 G.P.M. Duration of test 24 hrs
Drawdown 19' 1 3/4" ft. Date 7-22-64
Static level-depth to water 127' 11" ft
Quality (clear, cloudy, taste, odor) Clear
Pump installed by [illegible]

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Top soil	0 Feet	4 Ft.
Yellow clay	4	19
Blue sandy clay, tills & boulders mixed	19	56
Blue clay & gravel	56	72
Blue clay - till, boulders mixed	72	106
Blue clay	106	119
Blue clay, gravel	119	120
Hard yellow gravel & clay mixed	120	131
Light gravel & hard yellow	131	138
Light blue sand	138	163
Coarse sand & Medium sand	163	177
Coarse sand & small gravel	177	182
Coarse sand	182	187

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.

N.

W. Nonresponsive E

S.

See reverse side for instructions

Drilling Firm MOODY'S OF DAYTON, INC.
Address 150 North Dixie Drive, Vandalia, Ohio — SINCE 1891 — 898-4514
Date 7-25-64
Signed Edward B Moody

*If additional space is needed to complete well log, use next consecutive numbered for

(2)

ORIGINAL

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio 43212

PLEASE USE PENCIL OR TYPEWRITER
DO NOT USE INK.

№ 342966

County *Hamilton* Township [illegible] Section of Township

Owner *City of Wyoming Ohio* Address [redacted] Nonresponsive

Location of property [redacted] Nonresponsive

CONSTRUCTION DETAILS

Casing diameter ______ Length of casing ______

Type of screen ______ Length of screen ______

Type of pump ______

Capacity of pump ______

Depth of pump setting ______

Date of completion ______

BAILING OR PUMPING TEST

Pumping Rate ______ G.P.M. Duration of test ______ hrs.

Drawdown ______ ft. Date ______

Static level-depth to water ______ ft.

Quality (clear, cloudy, taste, odor) ______

Pump installed by ______

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
	0 Feet	Ft.
Coarse sand - good gravel (tight)	*187*	*190*
Coarse tight gravel	*190*	*195*
Tight gravel & clay mix	*195*	*197*

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.

N.

W. [redacted] Nonresponsive E.

S.

See reverse side for instructions

Drilling Firm MOODY'S OF DAYTON, INC. Date *7-25-66*

Address 150 North Dixie Drive Vandalia, Ohio SINCE 1891 898-4514 Signed *Edward B. Warner*

(3)

*If additional space is needed to complete well log, use next consecutive numbered form

WELL LOG AND DRILLING REPORT

ORIGIN

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio 43212

PLEASE USE PENCIL OR TYPEWRITER
DO NOT USE INK.

No. 348924

County Union Township Springfield Section of Township

Owner [illegible] Address

Location of property

CONSTRUCTION DETAILS

Casing diameter 5" Length of casing

Type of screen [illegible] Length of screen 2' 10"

Type of pump [illegible]

Capacity of pump

Depth of pump setting

Date of completion 8/1[illegible]

BAILING OR PUMPING TEST

Pumping Rate [illegible] G.P.M. Duration of test 24 hrs

Drawdown ft. Date

Static level-depth to water ft.

Quality (clear, cloudy, taste, odor)

Pump installed by

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Surface	0 Feet	[illegible] Ft.
Gray Fine Sand	27	40
Blue Clay	40	55
Gray Sand & Pea Gr.	55	75
Blue Clay	75	93
Gray Sand & Pea Gr.	93	130
Gray Sand	130	180
Gray Sand & Pea Gr.	180	193
Blue Clay	193	195

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.

N.

W

[redacted]

S.

See reverse side for instructions

Drilling Firm Diehl Pump & Supply

Address 550 N. Wayne

Date 12/6/63

Signed Bill Hunter

If additional space is needed to complete well log, use next consecutive numbered form. (4)

Municipal

WELL LOG AND DRILLING REPORT

NO. 51743

County Hamilton Township Springfield Section of Township 29

Owner Village of Glendale Address

Location of property [redacted]

Nonresponsive

CONSTRUCTION DETAILS		BAILING OR PUMPING TEST	
Casing diameter	12"	Pumping rate	773 G.P.M.
Length of casing	164'	Type of screen	Cook W
Length of screen	30	Duration of test	8 Hrs.
Type of pump	Peerless Turbine	Drawdown	32 ft.
Date	Nov. 25, 1953	Capacity of pump	750 GPM
Developed capacity	750 GPM	Depth of pump setting	140'
Static level - depth to water	66 Ft.	Date of completion	
Pump installed by	Jos. Koehne Sons		

WELL LOG			SKETCH SHOWING LOCATION
Formation	From	To	
Top Soil	0	6	
Muddy Gravel	6	68	
Gravel- Water Bearing	68	74	
Blue Clay	74	85	
Fine Sand	85	88	
Brown Loom	88	114	
Muddy Fine Sand	114	125	
Muddy Gravel	125	145	
Sand	145	156	
Sand & Gravel	156	194	

Nonresponsive

Drilling Firm Jos. Koehne Sons Date July 12, 1954

Address 1826 Sherman Ave Copied by j c

(5) 1

Hamilton 6

WELL LOG AND DRILLING REPORT

NO. 230008

County Hamilton Township Springfield Section of Township

Owner City of Wyoming Address Nonresponsive

Location of property Nonresponsive

CONSTRUCTION DETAILS

Casing diameter 16" Length of casing 168' Type of screen CookW Length of screen 25

Type of pump Turbine

Capacity of pump 400 GPM

Depth of pump setting 190'

Date of completion 1957

BAILING OR PUMPING TEST

Pumping rate 600 G.P.M.

Duration of test 8 Hrs.

Drawdown 5 ft. Date

Developed capacity 600

Static level - depth to water 145 Ft.

Pump installed by Posey Co.

WELL LOG			SKETCH SHOWING LOCATION
Formation	From	To	N. W. E. S.
Top Soil	0	3	
Clay	3	20	
Blue Clay	20	83	
Gravel	83	85	
Blue Clay	85	138	
Sand	138	193	

Drilling Firm A R Posey Co. Date 2-15-60

Address Cincinnati, Ohio Copied by j.c.

(6)

WELL LOG AND DRILLING REPORT

NO. 179971

County Hamilton Township Springfield Section of Township

Owner City of Wyoming Address Nonresponsive

Location of property

CONSTRUCTION DETAILS

Casing diameter 16" Length of casing 152'

Type of screen Cook Length of screen 43'

Type of pump

Capacity of pump

Depth of pump setting

Date of completion 9-23-60

BAILING OR PUMPING TEST

Pumping rate 750 G.P.M.

Duration of test 24 Hrs.

Drawdown 15-3/4 ft. Date 10-5-60

Developed capacity 500 GPM

Static level - depth to water 132 Ft.

Pump installed by

WELL LOG

Formation	From	To
Clay & Hard Pan	0	140
Dirty Fine Sand	140	167
Fine Sand, Some Gravel	167	176
Medium Sand, Some Gravel	176	187
Lagge Gravel, Medium Sand	187	191
Large Boulders	191	193
Rock	193	194

SKETCH SHOWING LOCATION

N.

Nonresponsive

S.

Drilling Firm Diehl Pump & Supply Co. Inc. Date April 10, 1961

Address 3985 Race Rd. Cincinnati, O. Copied by j. c.

(7)

APPENDIX C

APPENDIX C: VISUAL SITE INSPECTION SUMMARY REPORT

The Visual Site Inspection (VSI) summary and photograph log (Attachment B) document the activities and observations of representatives of the Ohio EPA during the April 2, 1991 VSI of Van Waters and Rogers Incorporated, Cincinnati, Ohio. Observations and findings from the VSI have been incorporated into the main body of this report and provide a basis for suggested further actions.

Visual Site Inspection Summary

The following individuals participated in the VSI:

Bohannon, Donna	Ohio EPA, DERR
Gibbons, Amy	Ohio EPA, DERR
LaGasse, Jane	Ohio EPA, DERR
Reiss, Rick	Ohio EPA, DERR
Boden, Mark	Ohio EPA, DSHWM
Wheeler, Darrell	Van Waters & Rogers
Hooper, James	Van Waters & Rogers

The investigation team assembled at 8:45 a.m. in the conference room at Van Waters and Rogers Incorporated, 3025 Exon Avenue, Cincinnati, Ohio. Facility representatives provided information regarding land use history, operations history, current operations, waste management practices, and specific information regarding SWMU's.

According to the operations manager, the site was developed as a warehouse-distribution facility, in 1957, by the Tranter-Niehoff Investment Corp. The site was leased in February 1958 to the Merchant's Chemical Company and used as a chemical warehouse and distribution center. Merchant's Chemical was purchased by the McKesson and Robbins Corp. in October 1958 and the facility became

part of the McKesson Chemical Company. In 1986, McKesson Chemical was purchased by Van Waters and Rogers Inc., a subsidiary of Univar. The property and structures are leased to Van Waters and Rogers by the Tranter-Niehoff Corporation.

The introductory meeting ended at approximately 9:15 a.m. The VSI immediately followed and included observations of SWMU's and related process areas. The team members followed the waste stream starting with the entrance area(loading/unloading dock), moving to the storage areas (including product, hazardous wastes, and non-hazardous liquid wastes), the corrosives building, the solvent tank farm and repackaging building, and finally ending at the office. None of the team members reported any adverse symptoms during or after their visit.

The Visual Inspection was concluded at approximately 11:00 a.m. on April 2, 1991.

APPENDIX D

APPENDIX D: PHOTOGRAPH LOG

The photographs on the following pages document the observations made during the VSI. The photographs are identified by a number which, when referring to Figure 19, identifies the appropriate SWMU.

1) Facing north, from office entrance, toward product storage area (Aisle 1).

2) Facing east, from office entrance, toward product storage area (Aisle A).

3) Facing north toward food product storage area (Aisle 3).

4) Facing south from the end of Aisle 5; oxidizers are on the left (east).

5) Facing west - warm room.

6) Facing south - loading/unloading docks located on the south wall in the southeast corner of the main building (warehouse) (SWMU No. 1).

7) Facing east - doorway to loading/unloading dock on east side of southeast corner.

8) Facing north - dock storage area (east side of building).

9) Facing northwest - ground level drums are product even though this is part of the hazardous waste storage area.

10) Hazardous waste storage area. The two black drums are hazardous waste (SWMU No. 2).

11) Facing northeast toward corrosives tank farm, hazardous waste storage area, and corrosives repackaging building (SWMU Nos. 2, 3).

12) North end of corrosives repackaging building where filling point with vent (SWMU No. 5) is located.

13) Wash basin and elementary neutralization system (SWMU No. 3).

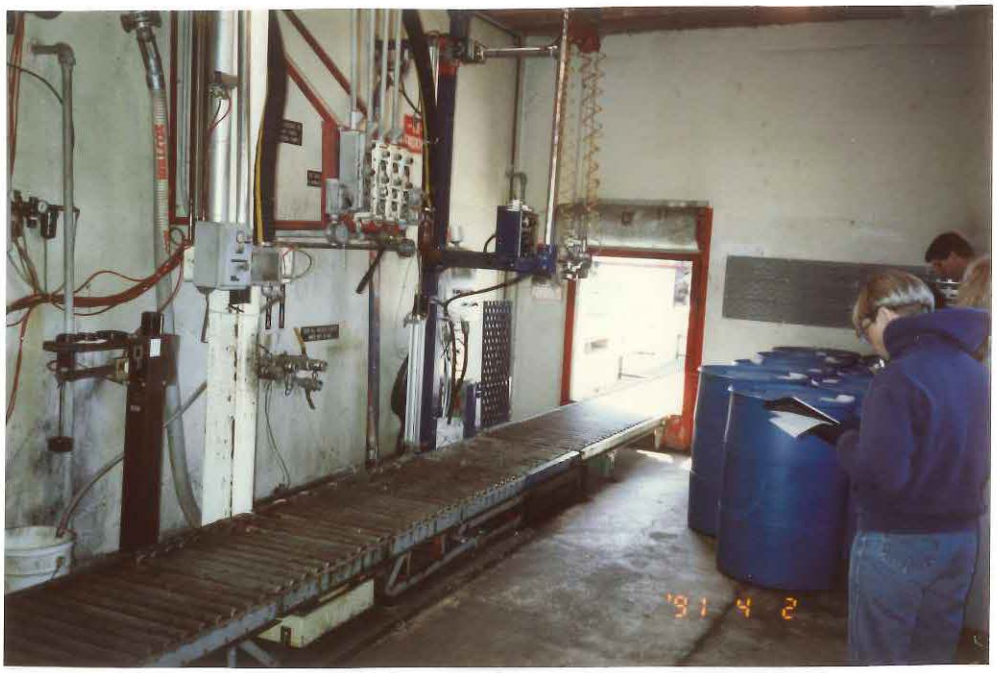
14) Vent over drum wash pit in corrosives repackaging building (SWMU No. 4).

15) Drum neutralization pit; empty totes in the background.

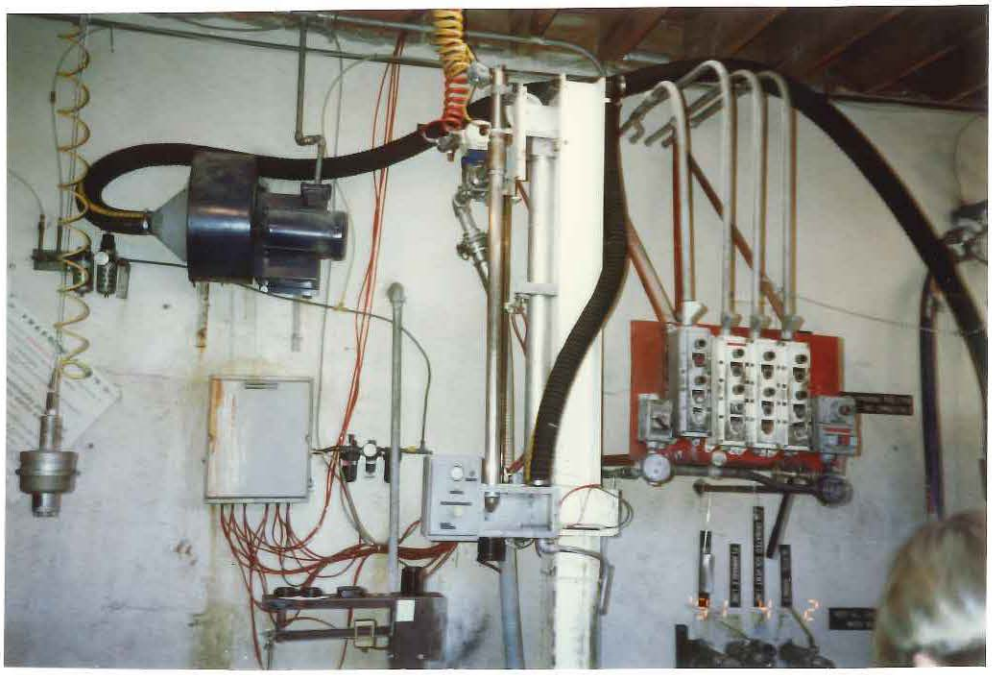
16) Piping from drum neutralization pit. Two pipes in center of picture drain into a tributary stream of Mill Creek.

17) Diked northeast corner of solvent tank farm.

18) Facing northeast from tank farm toward corrosives building. Note drums of hazardous waste (line flush) just outside the concrete dikes (SWMU No. 7).



19) Solvent repackaging building: individualized fill lines, etc.



20) Vent - solvent repackaging building (SWMU No. 6).

21) Facing northwest toward main facility building.

22) Drain from diked/sloped area at south boundary. Empties into a small tributary stream leading to Mill Creek, approx. 100 yards west.

APPENDIX E

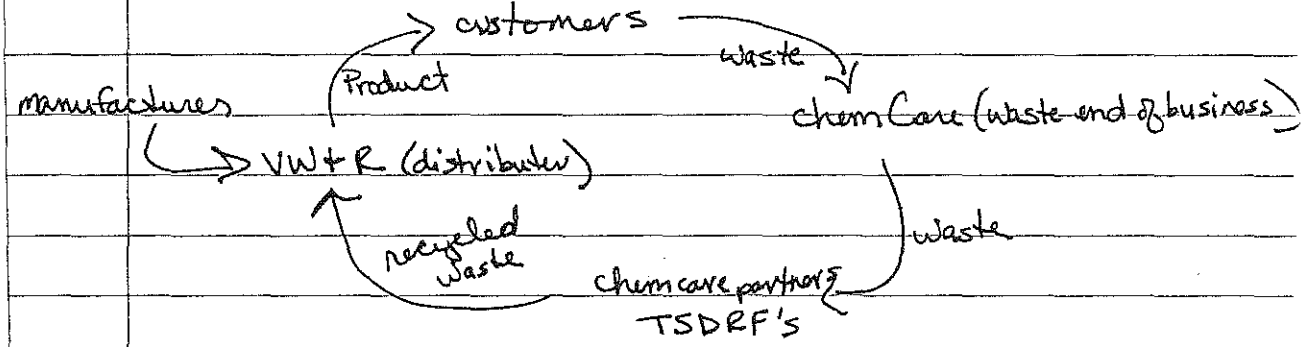
APPENDIX E: TEAM MEMBER FIELD NOTES

VSI - Van Waters + Rogers 4-2-91

attended by: Donna Bohannon, Amy Gibbons, ~~Mark Estes~~, Jane Labasse, Mark Boden

VW+R ⟶ Darrell Wheeler, James Hooper

Univar only subsidiary in U.S + Canada



repackage some of the bulk product from manufacturers

5th largest

McKesson was acquired by Univar

storage not longer than 10 days

15 - 20% of customers use ChemCare end of business

300 - 400 drums of waste a month

No previous owners since McKesson 35 years

no chemical sealant on floor

fire extinguishers present

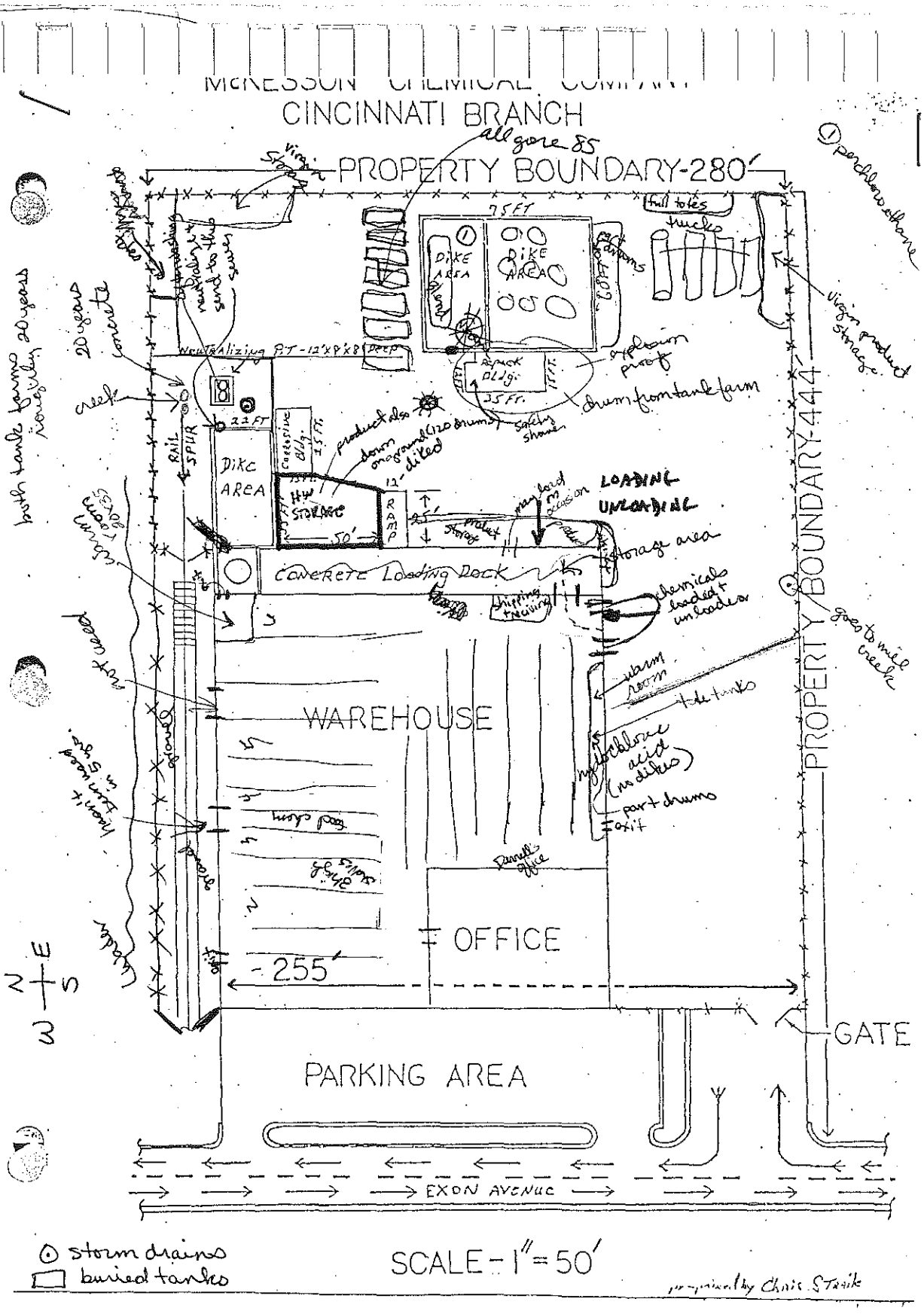
no reconditioning of drums

elementary neutralization (just wash out drums)

medical surveillance program this yr.

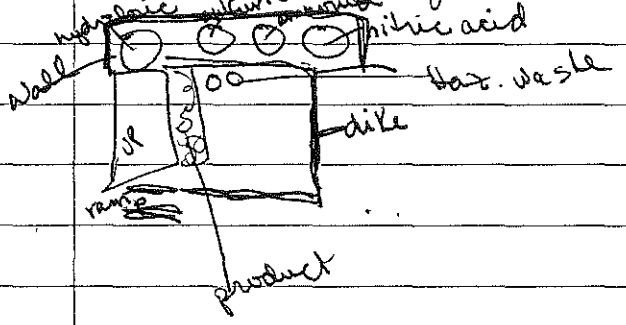
concrete in warehouse 35 yrs. 6 inches

No smoking signs posted


CINCINNATI BRANCH
PROPERTY BOUNDARY-280'
PROPERTY BOUNDARY-444'
DIKE AREA
DIKE AREA
NEUTRALIZING P.T. - 12'x8'x8' DEEP
DIKE AREA
RAIL SPUR
HW STORAGE
RAMP
LOADING
UNLOADING
CONCRETE Loading Dock
WAREHOUSE
OFFICE
255'
GATE
PARKING AREA
EXON AVENUE
storm drains
buried tanks
SCALE - 1" = 50'

Send out chem care package to customer - they put waste sample in + send to TSDF - the profile is sent to VWTR + back to customer. Then the waste can be transported to VWTR + on to the TSDF.

Stopped using hydrochloric + sulfuric acid 4 years ago



no air permits?

corrosives - packaging (nitric acid)

(2 tanks take water from neutralization pit
↳ tanks Ph is tested then discharged to sewer

OO - storm drains are closed to creek behind fence which goes to mill creek when rains + effects in area take ph + then open drain to sewer. if its haz. it is collected by air pump + drummed.

says 6000Gal Blend tank:

Stainless steel tanks ethylenal glycol + acetic acid for Dupont in Columbus / Store Versien 100 in other 1/2 of 4000 gallon tank

isopropyl alchol is flush
rusted one is isopropyl + waste
this is from cleaning lines in tank farm
6 drums every 2 months

✓ on NPDES?

- The property is leased to VW+R by a man named Trainor (he also leased to McKlesson)
- McKlesson started in Feb 3, 1957 ~~1958~~ 58.
- Haz waste is stored around 10 days only
- The haz. waste has always been stored where it is now.
- Both Tank farms were built in 1962 - layer of clay under gravel.
- tanks in tank farm are steel or stainless steel
- At Glendale-Milford Rd + Reading Rd there is the Evandale Community Building about 1 mile from VW+R.
- Buried tanks were removed in 1985
- There was nothing on the property before McKlesson leased it.

VAN ~~Rogers~~ Waters & ~~Waters~~ Rogers RFA 4-3-91

Branch Office Manager: Darrell Wheeler

Regional Regulatory Manager: James P. Hooper

- Video on Univar Corp. -

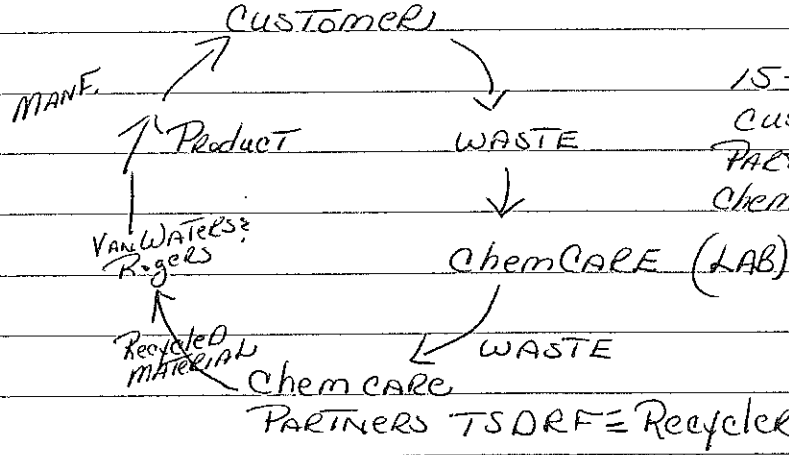
Univar is a service business for chemicals

Distributor only

Handle products for manufacturers.

Meeting Notes:

- Univar is the parent Corp & Van Rogers & Waters is a subsidiary.
- Univar bought McKesson
- Van Waters & Rogers does repackage some materials. Most of business is non-haz materials. Materials come in bulk - it's repackaged by VW&R.



~~Customer~~ sends chemcare pkage to customer - they put waste sample in & send to TSDF - the profile is sent to VW&R & back to customer. Waste is transported to VW&R and on to the TSDF.

- WASTE RECEIVED BY FACILITY IS CONTAINED IN DRUMS AND PORTABLE TANK TOTES.
- FACILITY SHIPS WASTES OFF-SITE EVERY 10 DAYS
- ONLY OCCUPANT OF FACILITY HAS BEEN VANWATERS & ROGERS.

VSI NOTES:

- NO CHEMICAL SEALANT ON FLOOR. THERE WERE SEAMS IN THE CONCRETE FLOOR AND A FEW CRACKS HERE & THERE-THROUGHOUT FACILITY
- WARM ROOM
  - 80-90°F KEEPS CHEMICALS FROM SOLIDIFYING
  - HEATER (STEAM)
  - VENT RELEASES THE STEAM OUTSIDE BLDG.
  - SIZE OF RM: 20 BY 35 FT =
- NO VENTILATION SYSTEM IN MAIN BLDG
- FACILITY DOES NOT HAVE A LAB.
- WASTE/PRODUCT IS LOADED AND UNLOADED THROUGH 2 LOADING DOCK DOORS ON SOUTH END OF MAIN BLDG.
- DOCK AT EAST END OF BLDG: THE FACILITY MAY LOAD ONE DRUM (OR UNLOAD) IN THIS AREA ONTO A TRUCK. (OCCASIONAL- NOT MAIN LOADING AREA)
- HAZARDOUS WASTE STORAGE
  - AREA HOLDS 110 DRUMS.
  - AREA IS SURROUNDED BY: 3 INCH BEAM (ROUNDED) ON THE SOUTH & PART OF EAST SIDE, DOCK & RAMP ON WEST SIDE, 3 FT BEAM ON NORTH SIDE, AND

the Corrosive Bldg located on the EAST side of storage area.

- Corrosive Bldg.
- -- Package corrosive materials
- -- Neutralization sink that drains liquid from washed drums into underground pipe into tanks located outside of Bldg.
- -- Vent from neutralization area goes (releases) outsides
- Storm drains
  - -- located behind Corrosive Bldg.
  - -- Run (drains) to M. U. Creek
- Facility does not have a Air or NPDES Permit.
- Cement area behind Corrosive Bldg
  - -- 30 yrs old ≈
  - -- Repaved in 90 with Blk Top

Corrosive Bldg

- -- Wash out drums in Neutralization area in Corrosive Bldg.
- -- Rinse goes underground threw pipes leading to outside tanks - where it is stored.
- -- Ph is tested 6-7
- -- Air pump is hooked onto Tank (when tank is full)
- -- Liquid is pumped out into drains into ~~Ath~~ ~~Creek~~. Sewers.

- Empty Tote Tank Storage is located outside North end of Facility.
- Buried Tanks were removed from site in 1985.
  -- Concrete covers area, since 85.
  -- Tanks pulled in 85 when McKesson owned property.
- Tank Farm (12 total)
  -- One 4g Tank contained two compartments. Blend Tank
  A.) 6000 gal. (part of) Tank Facility Blends ethylene glycol and acetic acid.
  B.) 4000 gal part of Tank. Storage for Versene 100.
  -- Tanker Truck pumps material into this Tank.
  -- One Tank is going to be removed due to leaking. It is now empty.
  -- Eight Tanks are insulated.
  -- 3 foot Berm surrounds Tank Farm. No visible cracks.
- Facility generates about 6 drums of waste every 2 months. (see Haz Waste Report)
- Repack/Redrum Bldg.
  -- Facility drums material from Tank Farm (The waste)
  -- Exhaust flows to outside.

- FAR EAST END of Property: STORAGE of full TOTE TANKS AND Product.
- Pipe on edge of lot (southside) goes underGRD To Mill Creek.

Meeting - follow-up after USF

- Revised PART A will be sent TO OEPA
- McKesson built TANKS FARMS IN 1962
- TANK FARM TANKS are STAINLESS STEEL
- Closest PARK To FACILITY is ¾ mi. AWAY
- FACILITY has NO AIR PERMITS OR NPDES PERMIT

12

Apr 2, 1991

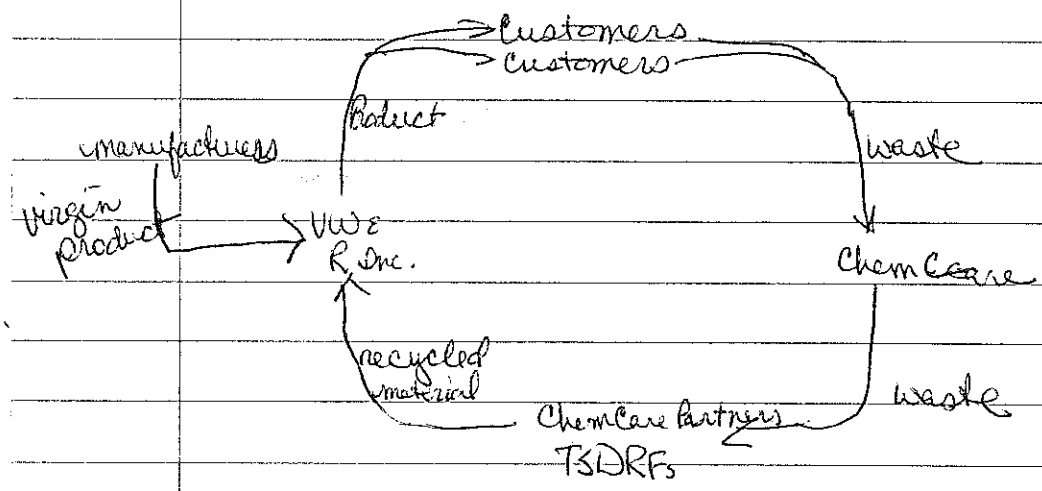
Van Waters & Rogers - VSI 8:45 a.m.

Informational Mtg.

Darrell Wheeler - Branch Mgr.
Jim Hooper - prepares Part B.

(A) will show video.
- Subsidiary of Univar Corp (parent corp.)
- Chemical Distributors only

(B) Waste Stream



so for storage b/c many customers are small quantity users & generators → VW&R
① gets product in bulk & repackages.
② Picks up waste; when have enough ship it to recycler.
* Acts as transport status moving (WASTE) everything out in 10 days

Handle mainly drums & portable tote tanks. (no tank trucks which are sent directly to TSD facility)

* - will be sending us a revised Part A giving owner/operator history.; Generators report. (top 2 pgs)
* - will be sending us labeled diagram of tank farm
- storage area has always been in same place.

- McKesson built tank farms in 1962; concrete has been there since then
- Underground tanks removed in 85, new concrete laid over them.
- All tanks are steel.
- corner of Glendale - Milford / Evendale recreation area ~ 3/4 to 1 mile away

- Tour of facility
- VSI ended at 11:00 a.m.

Van Waters & Rogers Inc.
subsidiary of Univar

JAMES P. HOOPER
REGIONAL REGULATORY MANAGER
NORTHERN REGION

600 HUNTER DRIVE, SUITE 300
OAK BROOK, IL 60521-1926

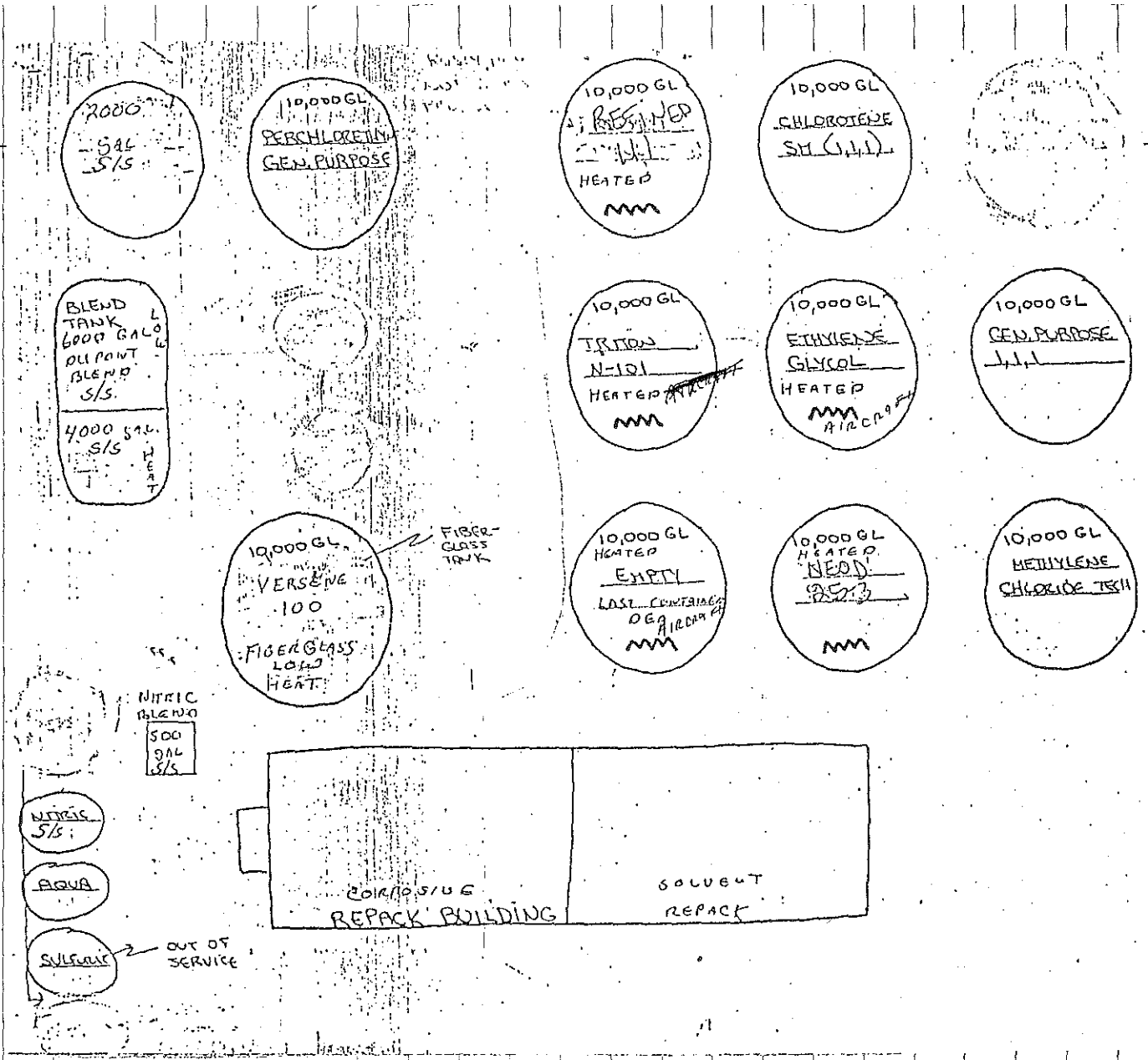
(708) 573-4340
FAX (708) 573-2536

Rogers Inc.
ary of Univar

ARRELL WHEELER
ICH OPERATIONS MANAGER

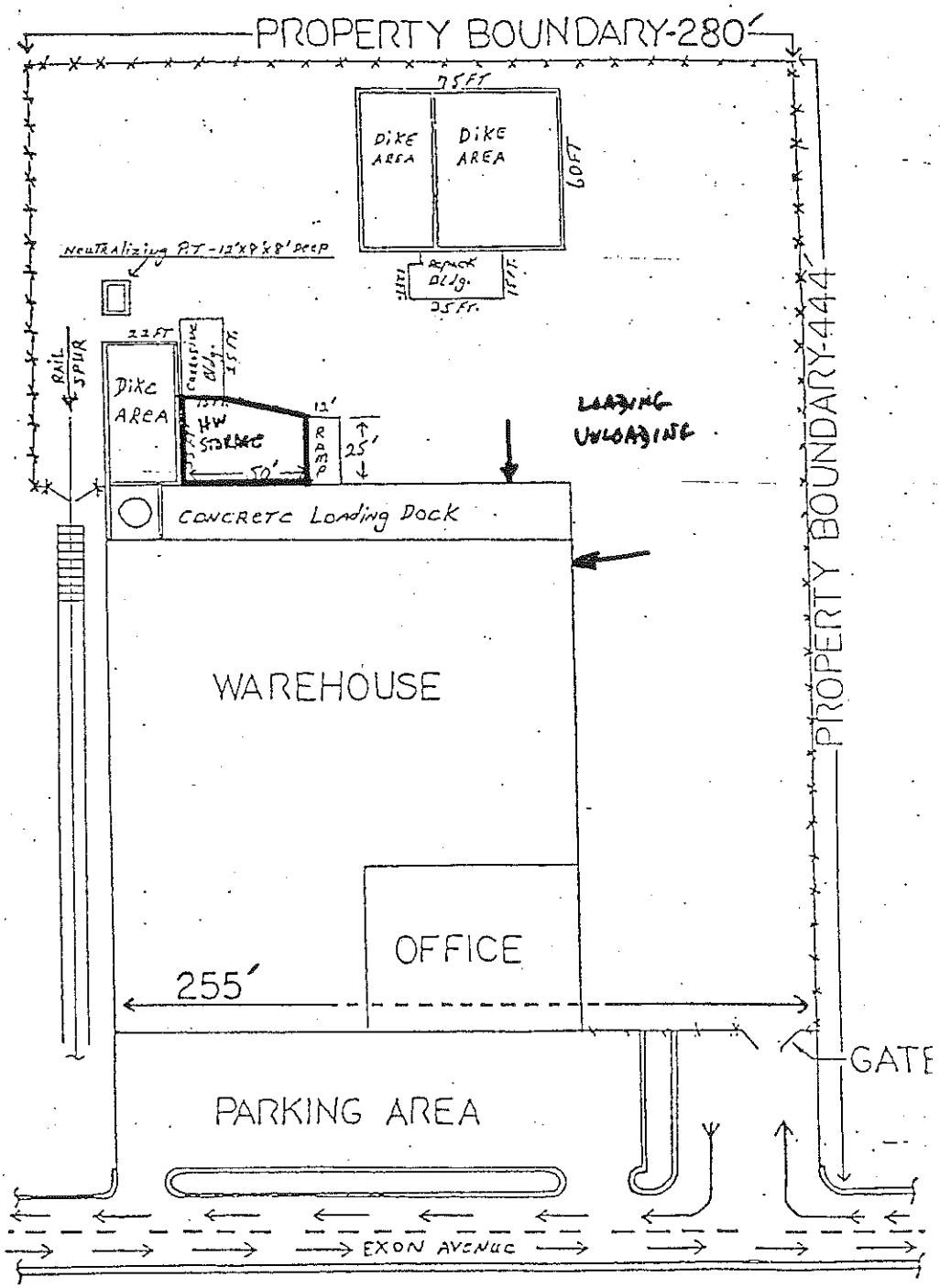
(513) 563-2440
RES (513) 398-2710

Tank farm



VWAP P.3

CINCINNATI BRANCH



SCALE - 1" = 50'

originally by Chris Stasik